

**Children as Health Educators:
The Child-to-Child approach**

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**This thesis is dedicated to all those who work with children and strive for health.
When we work with children we not only change the present - we change the future.**

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We are all teachers

ABSTRACT

This study explores the Child-to-Child approach to health education. Child-to-Child claims that children can be effective promoters of health. The thesis provides an analysis and criticism of Child-to-Child, comparing theory with practice in the Little Teacher Programme in Botswana. It examines how Child-to-Child has sought to keep abreast of new thinking and to respond to experience and considers the extent to which its ideas have been implemented. It explores whether primary school children can be effective health educators and seeks to identify factors enabling or inhibiting their effectiveness. Research questions are focused in three main areas.

First, *what is meant by the Child-to-Child approach to health education?* What does Child-to-Child mean theoretically? To what extent has current thinking departed from the original conceptualization of the approach? What does Child-to-Child mean to the practitioners of the Little Teacher Programme in Botswana and how successfully have they applied its ideas and methods?

Second, *how effective can children be as health educators using the Child-to-Child approach?* A field study of the Little Teacher Programme is included to test the hypothesis that child educators can raise the knowledge level of preschool children and that performing their role can increase their own knowledge level. An extension of the main field study addresses a further question, *what is the influence of the poor urban environment and of ethnicity on the effectiveness of children as health educators?*

Third, *how can children be effective health educators and what factors enable or impede their effectiveness?* The study considers how social, cultural and environmental factors may influence health behaviours.

The study concludes that children can be effective health educators at the level of knowledge change but raises serious questions about the failure of Child-to-Child to take account of traditional resistance to some of its central ideas.

Key words: Child-to-Child, Evaluation, Botswana.

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Abbreviations

AIDS	Acquired Immuno-Deficiency Syndrome
ARC	Arab Resource Centre
AWA	American Women's Association
BCC	Botswana Christian Council
BERA	Botswana Educational Research Foundation
CHETNA	Centre for Health Education Training and Nutrition Awareness
CISAS	Centre for Information and Advisory Services in Health (a Nicaraguan NGO)
DDT	Dichloro-diphenyl-trichloroethane
ERNESA	Educational Research Network in Eastern and Southern Africa
GDP	Gross Domestic Product
HDI	Human Development Index
HIV	Human Immuno-Deficiency Virus
HRD	Human Resource Development
ILO	International Labour Organization (part of the United Nations)
KDT	Kuru Development Trust
MLGL	Botswana Ministry of Local Government and Lands
NDP	National Development Plan (Government of Botswana)
NGO	Non-Governmental Organization
NORAD	Norwegian Agency for International Development Co-operation
ODA	Overseas Development Administration of the British Government
PHC	Primary Health Care
PLA	Participatory Learning and Action
PRA	Participatory Rural Appraisal
PTA	Parent-Teacher Association
ORS	Oral Rehydration Solution
RADs	Remote Area Dwellers
SHAP	School Health Action Plan
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
WCEFA	World Conference on Education for All
UN	United Nations
UN ACC/SCN	United Nations Sub Committee on Nutrition
WHO	World Health Organization
YWCA	Young Women's Christian Association

Notes:

1. In this thesis Child-to-Child is sometimes written as CHILD-to-child. This is because as originally formulated the approach involved older children teaching younger children. The upper case letters for the first child were later dropped. However some organizations such as the CHILD-to-child Foundation of Botswana still use the original mixture of upper and lower case letters.
2. In this thesis the terms *Batswana* (pl.) and *Motswana* (sing.) are used to refer to the black 'Tswana and other Bantu tribes which comprise the majority population of Botswana. These peoples speak a common language known as *Setswana*. The terms *Basarwa* (pl.) and *Mosarwa* (sing.) are used to refer to the Bushmen who are the indigenous peoples of Botswana. They speak a number of languages all characterized by click sounds known as *Sesarwa*. In this thesis the text uses some of the four types of click sound: / -dental click, = alveolar click, ! alveolar palatal click, // lateral click. However, non-linguists may pronounce the Basarwa words by simply dropping the click.

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PART I THE PROBLEM

Chapter 1 INTRODUCTION

This chapter presents the rationale for the thesis. It argues that there is a need to increase our understanding of how innovative approaches to health education are being practised in different contexts. This study of the Child-to-Child approach is a contribution to the fulfilment of the need. It explores the claim that children can be effective health educators. This introductory chapter reviews the literature on the effectiveness of school health education with special reference to Child-to-Child. It outlines the scope and sequence of the thesis, defines the research questions and provides a conceptual framework for the thesis.

The author wishes to acknowledge an interest in the Child-to-Child approach. She is currently a member of the training group and research group convened by the Child-to-Child Trust in London. In this thesis she intends to offer a critical reflection on the practice of Child-to-Child and on the ideas and theories which have informed that practice. She intends to follow the advice of Donald Schon (1983): 'The practitioner may take time out to become a reflective researcher, moving in and out of research and practice careers (p.324)'.

1.1 Rationale

HEALTH EDUCATION - a key to community health :
but where are the locksmiths? (Francis 1993 p.17)

The Alma Ata Declaration (WHO 1978) was a milestone in health development thinking. It accorded a heavy responsibility to health education as the key to implementing primary health care. Ten years on a major review concluded that progress towards the goal of 'Health for All' had been slow and that efforts had been hindered by the lack of health educators who knew how to work together with families and communities to improve health (WHO 1988). The approach to health education known as Child-to-Child advocates involving children as

health educators in promoting (as well as receiving) health and is based on the belief that children can be effective agents of change.

A central role is now being defined for Child-to-Child within the WHO (1992a) concept of Comprehensive School Health Education. An upsurge of interest in school health has been encouraged by strengthening evidence that it can be an effective strategy for improving both health and educability (Pollitt 1990; ACC/SCN Feb. 1990; Caldwell 1993). Interest in promoting health through primary schooling has been further boosted by the focus on basic education to achieve the goal of 'Education for All' adopted by the World Conference on Education in Jomtien in 1990.

Consequently education planners and health planners are currently seeking to increase their understanding of the complex processes involved in successful implementation of health education programmes in different contexts. Supporters of Child-to-Child believe that they have found an approach which can harness the power of children to promote health and which is sufficiently flexible to be adapted to the local context and owned by participants. Child-to-Child views classroom activities against the background of the school as a health promoting environment and seeks to strengthen the bridge between the school and the community.

This thesis analyses the theoretical basis of the Child-to-Child approach and compares theory with practice in the context of the Child-to-Child Little Teacher Programme in Botswana. This programme is so called because primary school children perform the role of child educators. This thesis explores the hypothesis that primary school children can be effective health educators and includes a field study located in Botswana to examine this hypothesis and to identify factors which enable or inhibit the effectiveness of children as agents of change.

The purpose of this research is to contribute to existing data on the effectiveness of the Child-to-Child approach and to increase understanding of contextual variables which are important for successful implementation of the approach. The significance of this thesis is

that it will contribute to the research literature at a time when innovative approaches are being sought and a small window of opportunity has opened for health education to prove itself. Strengthening evidence to support spending on school health education has led to a re-examination of the role of the school as a vehicle for health promotion but decision makers are demanding more credible data, especially from less developed countries, to support continued spending on school health.

1.1.1 The need to learn from successful innovation: School health education is still struggling for legitimacy as an effective and efficient strategy for improving health. Planners have been slow to recognise recent shifts in the conceptualization of health, education and development and have frequently failed to acknowledge the social and environmental constraints to health development. In many schools health education still comprises a few lessons on hygiene, sanitation and nutrition within the science or the domestic science curriculum which disseminate information to the individual child but make no attempt to respond to the need to find collective solutions to health problems and concerns. School health education has traditionally been accorded low status within the curricula of most countries. Scotland is no exception:

Health education ...has not yet been accepted as an essential part of the fabric of education. It tends to fall into the no man's land between the school and the home, or, within the school, to be everyone's concern but no-one's responsibility. (Scottish Education Department 1974)

During the 1990s, however, the status of health education has been raised in response to growing recognition of the link between health status and educability and to a paradigm shift in development thinking towards human resource development. The upsurge of political commitment and advocacy for improving health through schooling is reflected in the rhetoric of major international development agencies:

Education for health is a fundamental right of every child. Health is inextricably linked to educational achievement, quality of life, and economic productivity. By acquiring health related knowledge, values, skills and practices, children can be empowered to pursue a healthy life and to work as agents of change for the health of their communities. The goal can be achieved if we have the will. (WHO 1992 p.1)

Interest in school health has led to increased collaborative research. For example, a large scale multi-country school health programme has been implemented and is being evaluated by the Partnership for Child Development (Bundy and Hall 1992; WHO 1993). In 1992 WHO convened a meeting of experts from sixteen nations to review country experiences and to develop a comprehensive model and guidelines for implementing school health programmes. The consultation aimed to stimulate national will and global action. It has been hailed as 'one of the most significant events in the history of international efforts to improve health and education' (Kolbe 1992/3 p.4). In September 1995 WHO affirmed their continued commitment by convening an expert committee to evaluate progress in implementing comprehensive school health and to move forward their 'Healthy Schools Initiative'.

As a result of international advocacy for school health education health planners in many developing countries are now actively seeking innovative strategies to plan, implement and evaluate comprehensive programmes. Innovation must be responsive to the realities of life and in many countries school systems are already in crisis. The curricula are overloaded, resources are diminishing, school enrolments are increasing and social and economic conditions limit action in the social sector. Effective health education must be well planned but planners, especially in developing countries, often cannot access the detailed and credible information needed to apply robust planning frameworks such as that developed by Green and Kreuter (1991). The lack of adequate information support for planning is well recognised. Van der Vynckt (1992/3 p.46) has strongly argued that a more systematic collection and analysis of information on all aspects relating to the well-being and schooling of children is essential for increased relevance and effectiveness of primary school health.

Past failures in health education underscore the need for a systematic approach to programme planning which acknowledges the constraints to behaviour change and the need for local adaptation. The key to local adaptation is a detailed and sensitive understanding of the social and environmental context. This point is eloquently expressed by Francis (1993):

Health education should never be seen as the turning of a single key - rather, it involves finding out about the nature of a wide variety of locks and knowing how to make appropriate keys. while we may know something about the keys, we are unsure of the nature of the locks in different social and cultural settings (p.19).

We need to identify and involve talented 'locksmiths' who understand the nature of the locks and know how to work sensitively with families and communities to improve health. The Child-to-Child approach believes that children, together with their teachers, can be these 'locksmiths'.

A critical examination of innovative approaches such as Child-to-Child, whose ideas have been rapidly taken up around the world, can yield much useful information to improve health and education. Child-to-Child needs to be studied carefully in order to understand better the theories and assumptions which inform the approach and the strategies used for development and dissemination of the ideas and methods. There is also much to learn from analysing the way in which practice relates to theory and from identifying the problems and constraints to effective implementation.

1.1.2 Assessing the effectiveness of health education: There is a lack of good evaluation studies which can lead to valid conclusions on the effectiveness of health education and promotion programmes. A remarkable lack of formative evaluation has also been noted (Veen, Vereijken, van Driel and Belien 1994; Peters and Paulussen 1994). Furthermore whenever useful data from sound methodological evaluation research is available this information is not easily accessible.

In recognition of the need for more and better information a one-year project called 'Improvement of the effectiveness of health education and promotion' was conducted in 1994 by the International Union for Health Promotion and Education in close co-operation with the Dutch Centre for Health Promotion. This project focused on research conducted in Europe involving a range of settings and health issues and led to a data base (EffectBase) and a series of state-of-the-art reviews on effectiveness research and to an instrument for analysing effectiveness studies (Veen et al 1994). A similar project has been undertaken by the Centre for the Evaluation of Health Promotion and Social Interventions located within the Social Science Research Unit at the University of London Institute of Education. This centre has developed a data base of studies almost exclusively from developed countries, a

tool for analysing effectiveness studies and reviews of the effectiveness of health education interventions in different settings. Evidence for the effectiveness of school-based initiatives from developed countries has also been reviewed by Tones, Tilford and Robinson (1993). A fair body of literature from developed countries now supports the effectiveness of school health education in terms of the outcome in individual knowledge, attitudes and health-related behaviours. An important finding from the review by Peters and Paulussen (1994) of twelve interventions which covered a range of health issues was that the most impressive effects came from the skill training type of intervention which increased self-efficacy. However few studies were able to detect any long-term behavioural effects because of relapse although cognitive effects appeared to last longer. Formative evaluation had been neglected. They stressed that programme developers should strive to develop programmes 'that can be implemented within the prevailing limitations of the educational system' (p.25). They considered that the effectiveness of health education is determined by the quality of the planning process. This view supports the claims of other writers (Mullen and Zapka 1989; Green and Kreuter 1991). Peters and Paulussen contend that to achieve long-lasting behavioural change school-based health education should be combined with community-wide interventions and provide ongoing education (booster sessions) throughout the school years. France-Dawson et al (1994) point out that there is much to be learned from interventions which have failed to show positive educational or behavioural change and call for more studies to be published reporting 'negative' results of interventions.

Two evaluation studies which have been hailed as landmarks are worthy of special mention. The large scale School Health Education Evaluation (SHEE) conducted by Connell (Connell, Turner and Mason 1985) evaluated four years of implementation of a comprehensive health education curriculum introduced in the 1980s into twenty States in the USA for 30,000 children. It is widely quoted as a major 'success story' for health education at the elementary school level (Dhillon 1992/3 p.29; Green and Kreuter 1991 p.379). Programme children were not only better informed about general health, health problems, and health risk behaviour than children outside the programme, but were also less likely to become cigarette smokers.

The second significant study is the Teenage Health Teaching Modules (THTM) Evaluation

conducted by Macro Systems, Inc. between 1986 and 1989. This was another large-scale controlled study involving almost 5,000 students, 150 teachers, and schools in seven states across the U.S.A. It demonstrated that a self-reported reduction in drug use, alcohol consumption, and cigarette smoking can be achieved in secondary schools using a comprehensive school health education curriculum. This study builds on the earlier findings of the SHEE and together these studies provide strong evidence for the effectiveness of school based health education to justify continued spending on comprehensive programmes. The THTM evaluation is presented in a series of six articles in the Journal of School Health (JSH 1991) and provides a useful model for future evaluators of large-scale programmes.

There is no comparable body of literature from developing countries on large-scale evaluation studies of health education or comprehensive data base of intervention studies despite much advocacy for intervention. The guidelines for comprehensive school health education produced by WHO (1992a) advocate increased spending on school health education on the grounds of the large size and high accessibility of the school child population and the impressive impact that health education has made on health status and educational achievement in the innovative programmes which their committee reviewed. It must be noted, however, that no impact data is presented in support of either this claim or the further claim that 'children involved in a comprehensive school health programme will have a positive influence on their own families' (WHO 1992a pp.2-4). The need for more well designed studies to evaluate the impact of health education programmes at all levels has been noted by Dhillon (1992/3) who was then the head of the Health Education Division of WHO in Geneva:

...health educators must reinforce evidence which proves that effective health education programmes make an importance difference - not only in knowledge, but in the attitudes of behaviour that result in healthy life-styles as well as to their educational achievements and employment prospects. (p.29)

There are many reasons for the paucity of credible evaluation data for health education programmes. Difficulties arise from the complexity of the communication processes involved, from the need to allow for social and environmental factors and from the confounding influence of other interventions which also impact on health. Moreover many

of the benefits of health education are delayed and may not be measurable for a whole generation. Consequently it is rarely possible to show a direct causal link between a programme and change in health status. Evaluation tends to focus on intermediate changes in knowledge, attitudes, behaviour or self-empowerment. (The problems of evaluating health education programmes are briefly reviewed by Downie, Fyfe and Tannahill (1990 pp.75-82) and more extensively by Tones, Tilford and Robinson (1990 pp.44-79) and by Green and Kreuter (1991 p.379).)

The extent to which evaluators of school health education programmes in developing countries face special problems and constraints should not be underestimated. Whereas schools may take responsibility for process evaluation, outside assistance is usually needed for outcome evaluations which are expensive and often require expert input to planning and implementation. Where evaluation data exist they may not be widely disseminated in countries which lack the necessary channels of communication such as professional journals, resources for conferences and opportunities for dialogue. Schools in many developing countries are experiencing high drop-out rates, high mobility of populations and rapid societal change which increase the difficulty of evaluating programme effectiveness. In many developing countries school attainment and 'drop-out' rates are now used as outcome measures for health education programmes.

There is a general consensus in the literature that well designed studies are needed to provide impact and process data on health education programmes in developing countries. Many small-scale programmes have now accumulated sufficient implementation experience to yield valuable lessons if they are sensitively evaluated. Many large-scale, well designed programmes are currently being implemented and in time these programmes should yield the outcome data being demanded to sustain interest in health education. Dhillon (1992/3 pp.29-30) presents an overview of what are claimed to be major breakthroughs in strengthening school health education currently being made in Asia and the Pacific, India, Indonesia, Malaysia, Papua New Guinea, the Philippines, Sri Lanka and Thailand. A large scale nationwide programme has been launched in Colombian schools involving parents and children who are known as health scouts. The programme, called SUPERVIVER, involves

the Ministries of Health and Education together with voluntary and community agencies. Indonesia has developed a 'Little Doctor' component of its nationwide school health programme using the Child-to-Child approach.

1.1.3 The need for studies to assess the effectiveness of Child-to-Child and to understand the process better: In common with other innovations in health promotion Child-to-Child is still struggling for legitimacy. The flexibility and adaptability of the approach has resulted in great diversity of practice and until the mid 1990s little systematic attempt had been made to analyse what could be accomplished by the approach.

During the 1980s the Child-to-Child Trust commissioned two evaluations which charted the spread of the ideas as they were rapidly taken up around the world. The first evaluation (Feuerstein 1981) was based on a questionnaire survey and provided useful descriptive data on the various styles of implementation. It recommended that more studies should be conducted to examine the role of the teacher in the Child-to-Child process. The second evaluation (Somerset 1987) also used a postal questionnaire survey but supplemented this by visits to three country projects. This survey included 114 projects in 39 countries and produced valuable descriptive data on the activities of the various programmes. It concluded that Child-to-Child had been successful in displacing passive pedagogy at least during Child-to-Child sessions and further demonstrated the versatility of the approach in diverse social, cultural and economic situations.

The need to promote research on Child-to-Child was acknowledged by the Child-to-Child Trust in convening a consultative meeting in 1990 to identify important research and evaluation needs and by the subsequent formation of a research subcommittee. This committee commissioned a review of the literature and research on Child-to-Child. This review (Heslop 1991) revealed that the bulk of the research on Child-to-Child consisted of uncontrolled evaluations and identified a serious gap in the literature: 'None of the papers included in this report provides sufficient information on the social, economic or environmental conditions into which Child-to-Child activities are initiated' (p.18). A subsequent literature review conducted four years later (Lansdown 1995) included a number

of small scale evaluations and four national evaluations but concluded that: 'there have still been no ethnographically based accounts (and) there is a dearth of well controlled studies of the impact of Child-to-Child on health behaviours and status using rigorous design' (p.17). Lansdown noted that little attention had been paid to gender issues.

National evaluations of Child-to-Child activities have been conducted in Uganda, Zambia, India and Botswana. Luswata (1992) examined the Child-to-Child work carried out in Uganda on behalf of UNICEF and found that Child-to-Child was changing the behaviour of children and teachers in participating schools. He concluded that the approach was viable and argued that with some streamlining of the administration it could be an effective strategy for the country as a whole. Gibbs (1993) carried out the review in Zambia where he found the number of schools using Child-to-Child was small with only about 0.01% of children being reached. He concluded that the success of the approach was due to talented and concerned teachers, to supportive head teachers, and to the work of district coordinators in spreading the approach. Where Child-to-Child was working at its best he found it had provided an avenue for the professional development of teachers and an active learning environment for children. He noted that Child-to-Child had the opportunity to provide a valuable support if health education was to be given a core role in the national curriculum.

The evaluation of Child-to-Child activities sponsored by the Aga Khan Foundation in India (Evans 1993) is the most comprehensive evaluation of Child-to-Child projects to date, differing from others in that it presents both process and impact data. The programmes reviewed took place in seven different settings (urban and rural) between 1986 and 1990 and qualitative case studies and quantitative methods of data collection were both used. The evaluation concluded that Child-to-Child was an effective way to bring health messages to children, particularly in schools, and that it was sustainable because it was continuing in all the settings evaluated after evaluation funding had ceased.

This evaluation identified a number of factors which were necessary for successful implementation. These factors were staff participation at all levels and stages of decision making; an agreed definition of what the Child-to-Child approach means; acknowledgement

of the gap between what teachers have been doing and what they are required to do within Child-to-Child; flexibility in the application of the approach; administrative support; teacher training and ongoing support; more than one teacher trained in each school; incentives (not necessarily more pay but recognition of what teachers do); support materials; evaluation beginning before the project gets underway and providing ongoing evaluation and feedback; Child-to-Child topics integrated into the curriculum; topics relevant to the children's situation, a limited number of topics in a given year; a clear link between schools and health centres; messages from children confirmed by other sources.

An earlier evaluation of school based Child-to-Child programmes in India funded by the Aga Khan Foundation revealed an important gender disparity. Communication to the parents generally resulted in communication to mothers rather than to fathers; girls were more likely to communicate messages than boys. Communication to the family and to neighbours was also found to be more effective if children were supported by health personnel or teachers. In the same fashion, children had greater credibility as health educators when they worked together in groups rather than singly in the community (Zaveri 1988)

In Botswana the Child-to-Child Little Teacher Programme in Government primary schools was started in 1979 and is coordinated by the CHILD-to-child Foundation of Botswana (an NGO). This programme aims to help schoolchildren (known as little teachers) prepare preschool children (known as preschoolers) for school entry. An evaluation commissioned by UNICEF (Babugura, Monau and Butale 1993) found that poor record keeping in schools made evaluations from that source difficult but teachers were 'emphatic' that the programme made a positive difference in preparing children for primary schooling. Children who had been little teachers also appeared to have enjoyed the experience. Parents and community groups were not involved as much as had been hoped and ongoing evaluation by the programme implementors had been only partial. Lesson plans developed in 1979 had not been modified in the light of experience. Despite these points, the overall conclusion was: 'There is ample evidence that this programme has had a substantial impact on the Botswana community...the programme enjoyed substantial objectives achievability and has had a non-trivial impact on the Botswana School Community (p.47)'. (This programme is examined

further in Chapter 6.)

The evaluations of some small-scale Child-to-Child initiatives also offer useful insights although these studies have been uncontrolled. Two evaluations report that children have been effective in influencing positive change in health attitudes and the knowledge and behaviour of adults (Fryer 1991; Rhode and Sadjinum 1980). An evaluation of the Malvani Child-to-Child 'Little Doctor' Project in India reported an impressive decrease in scabies (Bhalereo 1981) and Joseph (1980) reported a reduction in common skin complaints as a result of a Child-to-Child programme. Factors which have hindered programme success have highlighted the difficulty of children passing messages to adults in societies in which children occupy a position of low status and where knowledge, attitudes and practices are passed down from older to younger members within the family and community (Somerset 1987; Knight, Grantham-McGregor and Ismail 1991). Reports have also emphasised the need for the credibility of children as educators to be formulated from the start, systematically established, and the community prepared for it (CHETNA 1990).

There is much debate about appropriate methods for evaluating Child-to-Child. However, there is a clear consensus in the literature that well designed studies are needed to provide hard data on the impact of the approach as well as sensitive studies of successful programmes to increase understanding of the factors which are important for adaptation to local contexts.

1.2 Research questions

This thesis analyses the theoretical basis of the Child-to-Child approach to health education and compares theory with practice in the context of the Child-to-Child Little Teacher Programme in Botswana. It explores whether primary school children can be effective health educators and seeks to identify factors which enable or inhibit the effectiveness of children as agents of change. Research questions are focused in three main areas.

First, *what is meant by the Child-to-Child approach to health education?* What does Child-

to-Child mean to the theoreticians based in London University who are involved in developing the approach. To what extent has current thinking moved away from the original conceptualization of the approach? What does Child-to-Child mean to the practitioners involved in the Little Teacher Programme in Botswana and how have they interpreted and used the ideas and methods?

Second, *how effective can children be as health educators using the Child-to-Child approach?* In the context of the Little Teacher Programme what is the impact of child educators (the so-called little teachers) on the preschool children involved in the programme at the level of change in knowledge? What is the impact of performing the role of a health educator on the level of knowledge of the child educators themselves? This thesis includes a controlled field experiment to address the hypothesis that child educators can have a significant effect on the knowledge level of preschool children and that performing their role as child educators can have a significant effect on their own knowledge level.

Third, *what is the process by which children are able to be effective health educators and what are the factors which can enable or impede their effectiveness?* We saw earlier in this chapter that in order to bridge the gap between health information and health action we need to find out what the social, cultural and environmental factors are which influence health behaviours.

An extension of the main study will explore the influence of the urban environment and of ethnicity on the effectiveness of the intervention. The majority of children involved in the Botswana Little Teacher Programme attend rural primary schools and the field study will centre around the rural context. However the programme is run in some poor urban schools and this provides an opportunity to explore the influence of the poor urban context on the effectiveness of children as health educators. A few isolated settlement schools for Basarwa (Bushmen) children are also involved in the Programme and this provides an opportunity to explore the influence of ethnicity on the effectiveness of children as health educators.

The research questions addressed in this thesis are summarised below:

1. (a) What was the original formulation of the Child-to-Child concept and to what extent has this changed over time?
- (b) How have Child-to-Child ideas and methods been interpreted within the Little Teacher Programme in Botswana?
2. (a) What is the effect of child educators on the ability of preschool children to recall health messages and to give account of expected health behaviours?
- (b) What is the effect of performing the role of a health educator on the ability of the child educators to recall health messages and give account of expected health behaviours?
3. (a) What is the process by which child educators are able to pass health messages to preschool children and to their own parents?
- (b) What are the important factors which enable or inhibit the effectiveness of child educators?

Additional questions will be addressed by extending the main study to include an urban school and a school for Basarwa (Bushmen) children:

4. (a) What is the influence of the poor urban situation on the effectiveness of child educators?
- (b) What is the influence of ethnicity on the effectiveness of child educators?

1.3 Scope and sequence

To achieve the joint goals of 'Health for All' and 'Education for All' those who promote health education are now seeking effective and innovative strategies to implement comprehensive school health programmes. This thesis presents a study of the innovative approach to health education known as Child-to-Child with specific reference to the Botswana Little Teacher Programme. It is organized in six parts. Part 1 presents the research problem, Part 2 provides the theoretical context for the thesis, Part 3 presents a study of the Child-to-Child approach to health education, Part 4 reports on a field experiment to evaluate aspects of this approach in the Botswana context, Part 5 presents a case study of learning and schooling for Basarwa children in Botswana, and Part 6 provides a synthesis of the thesis and draws out wider implications of the work.

1.3.1 Part I: This has the one present chapter which has presented the rationale for the thesis. It has argued that we need to study innovative approaches to health education such as Child-to-Child to analyse the theories which inform them and compare theory with practice. A review of the literature on Child-to-Child has revealed that more well designed studies are needed to assess the impact of the approach, to understand the process better and to identify factors which enable or inhibit the effectiveness of children in specific country contexts.

1.3.2 Part II: This has two chapters which review the literature on health and education from the late 1960s to the mid 1990s and provide the theoretical background for understanding the context in which Child-to-Child was originally formulated and subsequently developed. Chapter 2 focuses on the theories, concepts and models of learning, education and health which are central to Child-to-Child. It also provides working definitions for the thesis. Chapter 3 addresses the complex interrelationships between education, health and development. It analyses the literature to explore the two assumptions on which Child-to-Child rests, that education can improve health and that healthy children learn better at school. It argues that there is much evidence to support these assumptions and that efforts to improve health and education work together as so-called ‘energizers’ of development.

1.3.3 Part III: This has three chapters. Chapter 4 provides a detailed analysis and criticism of Child-to-Child which is set within the frame of the history of Child-to-Child. This analysis examines the meaning of Child-to-Child to the academics and experts involved at the international level in moving the thinking forward. It exposes underlying theories and assumptions and traces the development of the approach from the initial formulation in 1978 as CHILD-to-child to its current formulation in 1996 as ‘Children for Health’. Drawing on the background provided in Part II, it examines the claim that Child-to-Child has constantly evolved in line with current thinking in education and in health and raises serious questions about the failure of Child-to-Child to take account of traditional resistance to some of its central ideas. This chapter is informed by primary and secondary analyses of the literature on Child-to-Child, including published and

unpublished documents and theses. Primary data are presented from structured interviews with two past Directors of (what is now) the Child-to-Child Trust and the chapter also draws on informal discussions with other people who have been central to the inception and development of the ideas.

Chapter 5 is focused at the national level. It examines Primary Education in Botswana to increase understanding of the context in which Child-to-Child ideas are being used to involve primary school children and preschool children through the Child-to-Child Little Teacher Programme. This chapter provides a country profile of Botswana and shows how traditional patterns of young child care and early socialization are being influenced by the rapid pace of societal change. It addresses issues of current concern in education in Botswana and traces the history and development of preschool education.

Chapter 6 provides detailed background for the field experiment reported in Part IV. It examines the way in which Child-to-Child has been understood and implemented within Botswana. It argues that the idea of involving adults in building partnerships with children is problematic and examines the extent to which the interpretation of Child-to-Child is still informed by the original formulation of the approach dating from 1979. This chapter is informed by existing documents and records, survey data collected by postal questionnaire, interviews with school teachers and with the Coordinator of the CHILD-to-child Foundation of Botswana. (This organization still uses the mix of upper and lower case letters originally adopted by Child-to-Child.)

1.3.4 Part IV: This has three chapters which present a field study of learning and schooling located within the Little Teacher Programme in Botswana. It presents a field experiment from which to assess the effectiveness of children as health educators at the level of knowledge change. This study aims to address the hypothesis that child educators can have a significant effect on the knowledge level of preschool children and that performing their role as child educators can have a significant effect on their own knowledge level. The field study also aims to define the process by which child educators are able to pass health messages to preschool children and to their own parents and to

identify factors which enable or inhibit the effectiveness of child educators.

Chapter 7 presents the rationale for the field study and gives an overview of the conceptualization and the approach in the field. It examines the debate surrounding the relative merits of deductive and inductive approaches. It argues that an imaginative combination of different designs and methods can be used to balance the strengths and limitations of each and that the choice of research design and methods should be determined by the questions to be answered and the situational constraints. The study design involves a quasi-experiment in which an intervention is made within the established Little Teacher Programme. A range of methods is used to collect both quantitative and qualitative data and particular attention is paid to two of these methods, focus groups and draw-and-write, because they are novel. Potential sources of bias are identified and discussed.

Chapter 8 and Chapter 9 present the findings of the field study. Chapter 8 presents the statistical analysis of knowledge test data to evaluate the impact of the intervention programme on the knowledge level of the preschool children and of the child educators. Chapter 9 explores the process by which children are able to pass health messages to preschool children and to their parents by drawing on data from focus group discussions, classroom observation and individual interviews with school teachers. This chapter also identifies factors which could enable or inhibit the effectiveness of child educators in this context and draws on data from focus groups, home observation and draw-and-write.

1.3.5 Part V: This part has one chapter which presents a case study of learning and schooling for Basarwa (Bushmen) children in a settlement school in Botswana. This chapter is informed by analyses of documents and records in addition to primary data. It contends that in this school children and teachers are embedded in a dynamic, cultural, social and political web and serious language and cultural barriers exist to learning. It highlights the inadequacy of the current model of schooling delivered to Basarwa children in Government schools and contends that their education should be re-evaluated from a cultural viewpoint.

1.3.6 Part VI: This has one concluding chapter which is organized in relation to the research questions to provide a synthesis of the analyses and research findings presented in the thesis. It draws out the implications of this work for practice and makes recommendations for future research and action at international, national and local levels.

1.4 Conceptual framework

The conceptual framework for the thesis is shown in figure 1.1. This framework defines the different organizational levels involved in promoting health using the Child-to-Child approach (international, national, school, household and community). It identifies the major stakeholders at each level (academics/experts, the CHILD-to-child Foundation of Botswana, teachers and children, parents, guardians and siblings) and outlines the focus of activity at each level. Each chapter is located within this framework showing how the thesis has been developed in a logical sequence moving from macro to micro perspectives and from theory to practice.

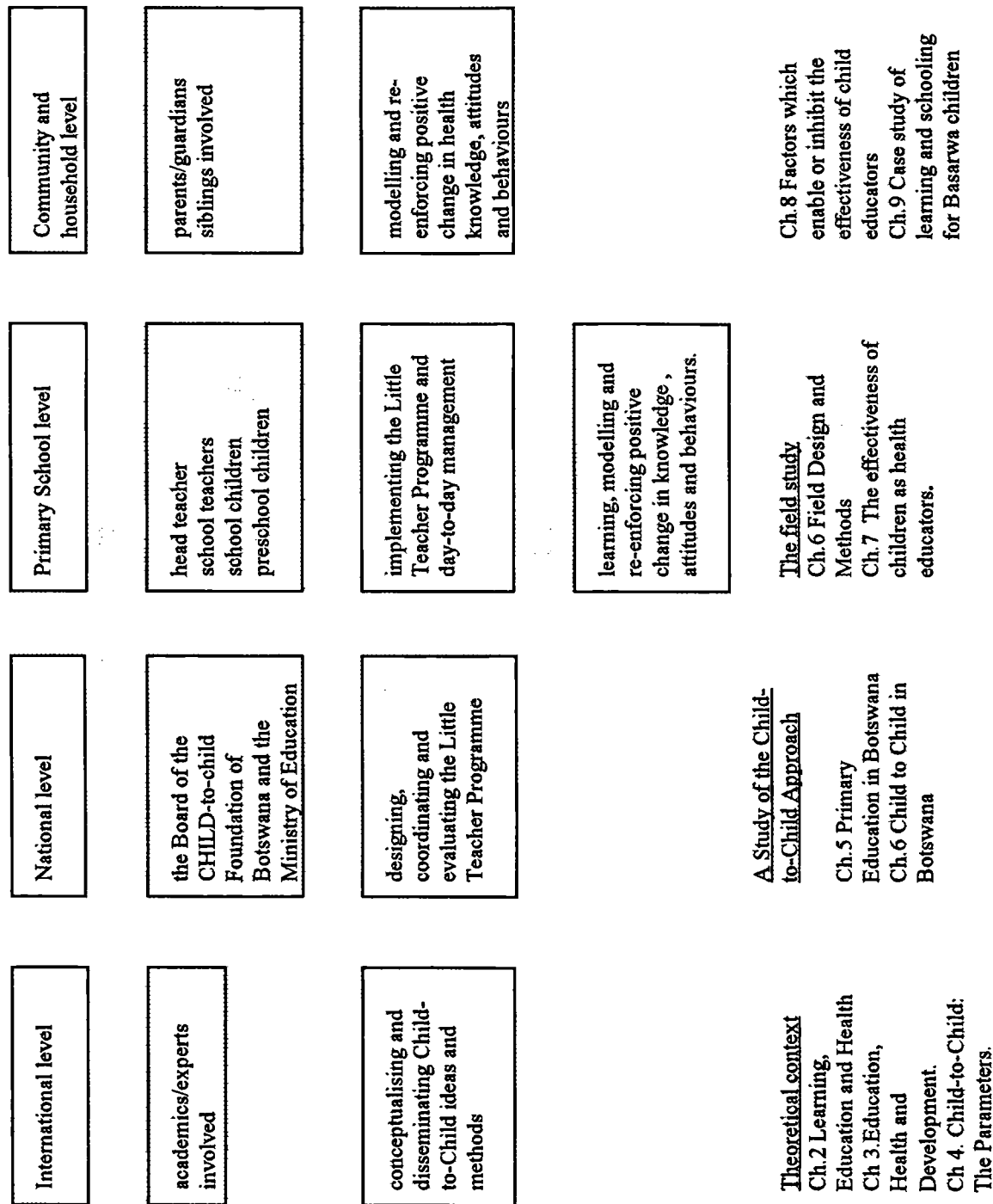


Figure 1.1 Conceptual framework for the thesis

PART II THEORETICAL CONTEXT

Conceptual Framework for Part II

Organisational level	International level
Who is involved?	academics/experts
What is going on?	developing concepts and theories and moving thinking forward
Thesis Chapter	Theoretical context: Ch.2 Learning, Education and Health Ch.3 Education, Health and Development

Chapter 2 LEARNING, EDUCATION AND HEALTH

This chapter reviews the literatures around learning, education and health. The literature of the late 1960s and 1970s is vitally important for understanding the context in which Child-to-Child was originally developed and the literature of the 1980s and 1990s provides background for understanding its subsequent development. Working definitions of learning, education and health are developed for the thesis to provide a benchmark against which to compare the way in which these concepts have been interpreted in Child-to-Child and in the Little Teacher Programme in Botswana.

2.1 Learning

Learning theory focuses on the process of education and is contentious. No one theory of learning has yet provided us with all the answers and there is no complete agreement amongst psychologists about the nature of learning processes. An excellent review of the major theories of learning is presented by Hill (1980). He compares the stimulus-response theories of the behavioural psychologists such as Skinner and Pavlov with the theories of cognitive psychologists such as Kohl from the Gestalt School which emphasise adaptability in the use of existing knowledge to provide new insights rather than the mechanical repetition of stimulus-response bonds. A middle path can also be distinguished between the traditions of the behaviourist and cognitive psychologists. This path is taken by psychologists such as Tolman, who argue that we learn from experience and that purposive behaviour is based on cues and previously learned plans of action (cognitive maps).

2.1.1 Active Learning: The importance of recognising the role of activity in the learning process has long been accepted in primary education and has always been central to Child-to-Child. As early as 1932 Whitehead warned educationalists to beware of 'inert ideas' which were only received into the mind without being utilised or tested or used in fresh combinations. He argued strongly that 'education with inert ideas is not only useless - it is above all things, harmful' and advocated for childhood education to be filled with the joy of discovery (Whitehead 1932 pp.1-3). Early examples from the 1920s and 1930s of the success of active or participatory learning include the work of Maria Montessori's 'self-education' in Italy, John Dewey's 'teamwork' in the USA, A. S. Neill's 'free school' approach at Summerhill in the UK and Paulo Freire's 'conscientization' methods for adult education in Brazil and Chile.

By the end of the 1960s the UK was seen to be leading the world in implementing progressive activity-orientated learning methods following the recommendations of the Plowden Commission's Report in 1967. The importance of active learning is a recurrent theme in Bruner's cognitive psychology (1961, 1970). Bruner contends that when people

actively construct knowledge they do so by relating incoming information to a previously acquired psychological frame of reference. This frame gives meaning and organisation to the regularities in experience and allows the individual to go beyond the information given. Moreover Bruner (1977) argues that this process is intrinsically empowering: 'an important ingredient (of active learning) is a sense of excitement about discovery of regularities of previously unrecognised relations and similarities between ideas with a resulting sense of self-confidence in one's abilities' (p.20).

In 1972 the publication of the Faure Report added further impetus to the active learning movement by arguing that the development of meaningful ideas requires both receptive and enquiry based learning. It called for new teaching methods to encourage children to learn actively and challenged teachers to master new techniques (Faure 1972). The Faure report was a milestone in education thinking and provided an early catalyst for the development of Child-to-Child. Hugh Hawes, who has played a central role in the development of Child-to-Child, admits to having been profoundly influenced by the thinking encapsulated in this report describing it as 'one of the most important single documents to have emerged in the past decade' (Hawes 1979 p.161). The centrality of active learning to Child-to-Child is clearly reflected in Somerset's (1987) evaluation and is explored further in chapter 4.

2.1.2 Lifelong learning: The Faure report argued that to keep abreast of the fast pace of change in society individuals communities and society as a whole need to be actively involved in the learning process throughout their lives: 'We should learn how to build up a continually evolving body of knowledge all through life - "learn to be" (Faure 1972 p.IV)'. Educationalists need to find ways of developing whole societies which can learn together to develop new skills and solve problems. This need was emphasised by the Director General of UNESCO, Federico Mayor, in his closing address at the 1991 World Conference on Education for All: 'Discovering how to learn and how to extend one's knowledge will ultimately become more important than mere transmission of knowledge'.

Child-to-Child can be firmly located within the framework of lifelong learning. Ideas

which are central to both concepts include the importance of horizontal integration of learning experiences; vertical articulation of such experiences over the lifetime of the learner; flexibility as to where and when learning can take place; the re-examination of the role of the school as one agent of education among many; a broadening of the meaning of 'learner' and of 'teacher' and the concept of a 'learning society' in which individuals choose their own path to learning.

2.1.3 Peer learning: Three kinds of learning relationships involving children can be distinguished in the education literature; peer tutoring; cooperative learning and peer collaboration (Foot, Morgan and Shute 1990 p.8). Peer relationships are distinguished by equality in terms of equivalence of age and stage of cognitive development and equivalence of knowledge or skill in the task or problem to be solved. Peer tutoring is relatively low on equality and high on mutuality, cooperative learning is high on equality and low on mutuality and peer collaboration is high on both. Peer tutoring includes both cross-age and same-age tutoring relationships but there is necessarily an inevitable asymmetry in the knowledge or skill between the children. As far as the tutoring is concerned the tutor is the expert and the tutee is the novice. There is a notable paucity of studies in the literature on children's perceptions of peer tutoring roles or of the strategies they use when tutoring.

In collaborative learning children work together to discover solutions and create knowledge by sharing, discussing and challenging their own partial and incomplete perspectives on a problem. Such learning implies a relatively symmetrical relationship between the children in an atmosphere of mutual respect and trust and where there is no authority relationship between them. Collaborative learning is supported by Piaget's theories of cognitive growth which argue that peer interaction provides children with the uniquely constructive feedback on which real cognitive development depends (Piaget 1970). The essence of collaborative learning is that children are introduced to new perspectives on problems by engaging in conversation with peers, having their own ideas challenged, and by being forced to 'decentre' in order to take account of these new perspectives. When children disagree with one another and when they have to come to

terms with other perspectives, they experience both social and cognitive conflicts which act as the catalyst by which a clearer understanding of the problem emerges.

The term cooperative learning (small group learning) is used to describe situations which are also based upon an essentially symmetrical relationship between interacting children within a classroom. It is an extension of peer collaboration rather than a distinctly different technique. Cooperative learning is relatively structured in that curriculum problems are often segmented into different components and the children take specified and complementary roles.

Theories of peer group learning pose a strong challenge to traditional educational values and practices because they imply radical changes to teacher education, teacher-pupil relationships, and classroom management. The teacher has to become a facilitator who is sensitive to the learning needs of the pupils, helps them to work together as a group and encourages the development of critical thinking, problem solving and decision making skills. Despite the lip-service paid to cooperative techniques and their well-documented effectiveness in many teaching situations, they are viewed with distrust by many teachers, pupils and parents. Considerable attitudinal barriers need to be broken down if the enormous potential children have for learning from one another is to be realized. We will see in Chapter 4 that the Child-to-Child approach can play an important role in addressing some of these barriers. As an alternative approach to teaching and learning Child-to-Child demands that teachers adopt a new way of working with children which involves them in active learning. Many educators now recognize Child-to-Child as a means of bringing active learning into schools that use traditional methods 'through the back door' (Phinney and Evans 1992/3).

Peer group learning is reflected in the original formulation of Child-to-Child which advocated older children teaching and helping younger children. Although some Child-to-Child initiatives (such as the Little Teacher Programme in Botswana) have continued to use the peer tutoring model, the current model of Child-to-Child places greater emphasis on collaborative learning. Different types of learning relationships are explored further

in chapters 4 and 6 which provide a detailed analysis of Child-to-Child.

2.1.4 Micro-cultures of learning. An innovative model of learning has been put forward by Little (1992). According to this model learning is essentially a process of enculturation in which the child is initiated into the culture of the school. Learning occurs when the gap between what the novice and expert each bring to the so-called 'learning arena' is bridged. This gap results from a combination of differences in knowledge, learning methods, reasons for learning and outcomes of learning. Once the gap is bridged the novice carries a revised set of learning 'equipment' which provides a new baseline from which to start the learning process once more. The nature of the interactions between novices and experts has a powerful influence on future learning because this revised set of 'equipment' may facilitate or hinder future learning depending on the way in which the learning gap was previously bridged.

Little's model is useful for understanding why the Basarwa (Bushmen) children involved in the field study failed to learn the health messages taught in the intervention programme. These children differed ethnically, culturally, linguistically and economically from their teachers and the failure of the current model to meet their learning needs is reflected in exceptionally high drop out rates. These issues are explored further in the case study presented in chapter 10.

2.2 Education

Theories of education tend to overlook theories of learning and to concentrate on broad educational goals. These goals can be very diverse because different models of education envisage strikingly different roles for the school. We need to consider some of these models in order to locate Child-to-Child within a broad framework of educational approaches.

2.2.1 Collective education: The collective model contends that the individual is to be

educated in and by society in order to become a good member of society and work for the good of that society. Consequently children must spend their childhood preparing to become responsible citizens and productive workers. This model raises serious questions of principle and of practice. A well known example of collective education is the Israeli kibbutz system but large-scale collective education has been widely adopted around the world in countries with greatly varying political philosophies such as Russia, the former Soviet bloc countries, China and many African states. In certain respects it can also be said to take place in Japan. A detailed account of the expression of theories of collective education in these countries is provided by Sutherland (1988) who concludes that there is insufficient evidence in the literature to assess the extent to which these theories are fully implemented and how much success they have had. Child-to-Child promotes children as good citizens with both rights and responsibilities for health.

2.2.2 Child-centred education: Child-centred models of education stress that education in childhood should be a time of happiness when children have freedom to develop their inborn abilities and follow their own interests. The right of children to make decisions for themselves is respected and the aim of education is to develop the full potential of the individual. Such theories are reflected in progressive educational approaches which emphasise 'play-way' methods, foster self-expression and allow children to choose what to study and what to do. The development of Child-to-Child has been strongly influenced by this model of education and therefore it will be examined further.

The origins of child-centred education are generally attributed to the writings of Jean-Jaques Rousseau. In his seminal book 'Emile' (1762) he rejected traditional views that human beings are naturally wicked and argued that children should be given the freedom to develop naturally through physical activities and real experiences, without having their activities limited by adult prejudices, adult rules and adult choices of subjects to be learned. He believed that such child-centred education would produce a good human being who has enjoyed learning, is keen to continue to learn and is a responsible member of society. Rousseau considered that the role of the educator was to find interesting activities to suit the child at different ages. He identified four main stages of childhood

development similar to those made popular in more recent times by Jean Piaget (1970).

Rousseau's original theories have been adapted and extended by other child-centred authorities such as Froebel (1782 -1852) who emphasised the importance of children's play as the natural way in which children learn about the world. He believed that through play children are free to express their own ideas. He used the metaphor of the kindergarden (garden of children) to suggest that educators, like gardeners, must provide a suitable environment (with toys and games) and protect against damage, but then have faith that growth and blossoming will come from within the child.

Educationalists have since debated what was meant by the notion of 'natural' development because it is evident that much depends on the environment in which the individual grows. A problem arises in interpreting what is 'natural' in human development in relation to social behaviour. Rousseau rejected the use of adult displeasure or anger to discipline children but contemporary child-centred educators have challenged this view arguing that it is reasonable for an adult to withdraw affection in response to unacceptable behaviour and that disapproval expressed by the peer group is a 'natural' and highly effective consequence. Moreover, some child-centred educators have deliberately used group pressure (particularly peer group pressure) as a sanction against anti-social behaviour. For example, A.S. Neill's school 'Summerhill' developed the system of general meetings in which anyone could bring a complaint against the behaviour of any other individual in the school community (teachers included) and penalties were imposed by the community (Croall 1983).

Child-centred approaches to education such as Child-to-Child have not only emphasised a new kind of discipline and a new definition of what is to be learned but have also focused on learning by experience. These principles have important implications for pedagogy. It is argued that something the individual has discovered by initiating activities, observing and interpreting the results is more likely to be remembered than something which is passively learned. Consequently children need to be involved in the observation of objects and events in their natural environment and in discovery learning. (The nature

and importance of such learning is reflected in the Child-to-Child methodology discussed in chapter 4.)

It is possible that child-centred education has had most affect on the work of schools through introducing various 'freedoms'. Where formerly pupils were generally expected to remain silent except when replying to the teacher, pupils in most school systems are now permitted to talk to each other during some activities, provided the conversation is about the subject being discussed. Children are generally more able to move around the classroom and, especially in the early years, are likely to have some freedom to choose which activities to engage in.

Child-centred approaches to education also demand a radical reinterpretation of the teacher's role. Traditionally the teacher has been seen as the expert possessing knowledge which is passed to the child. Child-centred education views the teacher as a facilitator, supplying resources the child may need in the process of following natural interest and learning by discovery. The teacher may join with the learner as a partner in a cooperative exploration of materials and situations. Maria Montessori (1918a, 1918b) advocated teachers as resource persons, her method providing an early demonstration that young children can learn a great deal if given suitable learning materials and allowed to use them freely. However this method has been criticised by child-centred educators because the teacher decides what resources to provide and the child is therefore not entirely free to pursue his or her own interests.

Critics of the child-centred approach have questioned the value of children not receiving any adult guidance and pointed out that the naïve observer may benefit from expert help to see what is important. It can be argued that the teacher should be allowed to intervene if necessary to protect the weaker members of the peer group and that teachers can never be entirely 'neutral' agents within the learning situation. Even if teachers are not permitted to make verbal comments they will inevitably convey what seems to be good or bad from their own point of view through body language or facial expression.

At present there is insufficient empirical evidence in the literature to show whether the child-centred theory of education is effective. Child-centred education aims to help the individual to learn what is useful and valuable to the individual, to develop the individual's ability to learn independently and to enjoy learning and to continue learning throughout life. Difficulties in evaluation arise because these aims are difficult to measure. Commonly used indicators such as exam success would not be adequate. New indicators would be needed to assess individual happiness (or otherwise) and behaviour towards other people. As we will see in chapter 4 these difficulties contribute to the paucity of credible evaluation data on which to assess the effectiveness of Child-to-Child.

The extent to which child-centred education has really been put into practice can also be questioned. In chapter 5 we shall see that many teachers assume that by allowing children to move about the classroom, to choose where they will sit and to talk to each other they are practising child-centred education and that other parts of the school work can be strongly traditional. This reflects a fundamental misinterpretation of the main principles. Given the difficulties of assessing the effectiveness of child-centred education it may be more useful to consider whether education would be improved by greater use of child-centred methods.

2.2.3 Deschooling: Some notable attempts have been made by child-centred educators to free children from the compulsions of schooling. In A.S. Neill's school 'Summerhill' lessons were not compulsory. If pupils preferred to spend their time in some other way then they were free to do so. A more radical solution to the compulsions of schooling was promoted during the 1970s when a movement emerged to abolish schools and replace them with radically alternative kinds of education.

A drastic attack on the dominance of the school system was made by Ivan Illich and others who challenged the relevance of schooling to more broadly based human development and the dominance of the school system in relation to other learning resources such as the family, the peer group or the wider community. The high cost of school systems, especially important for poor countries, was another argument for deschooling. In his

book 'Deschooling Society', Illich (1973) argued that the most useful learning of our lives takes place outside schools and that schools should be replaced with 'learning webs' which were arrangements by which learners would have access to the resources they needed to study. There would be a free market by which those with skills they could teach would offer them to those interested in learning them. The notion of learning webs also encouraged peer group learning in which those with similar interests would come together to help each other to progress. Supporters of the deschooling movement believed that human beings do want to learn and that their individual curiosity and energy would lead them to make the effort needed to join a learning web. Critics of the movement pointed out that peer group learning already existed and that providing access to resources inevitably needs organizing and would in time recreate the original bureaucracy. There was also much concern that deschooling would increase inequalities of educational opportunity for children.

2.2.4 The middle path: Dewey's (1964) theory of education can be interpreted as taking a middle position between the strikingly different roles envisaged for the school within child-centred and collective theories of education. Dewey's major contribution was to emphasise the role of the school as an agent of socialization, albeit within a democratic state. He believed that the prime aim of the school was to prepare the individual to live in society through practical experience gained in the society. Consequently he argued that schools should have a special relationship with the community in which they were located. Furthermore he argued that subjects only had merit if they were of interest to the learner and useful in attaining the learner's own purpose. His ideas led to the development of the Project Method. In chapter 4 we will see that Child-to-Child also recognises the importance of schools building a special relationship with their local communities and developing curricula for health which are interesting and useful to the child.

2.2.5 Empowerment education: In 1968 Freire published his seminal work, the 'Pedagogy of the Oppressed', in which he condemned the passive learning of facts (the so-called 'banking' approach) as an instrument of oppression. In contrast he claimed that an approach which challenged the learner to struggle with ideas and find solutions to the

problems they faced in everyday life could be an instrument of 'conscientization' and consequently of liberation. He stressed that 'assimilation results from search, from the effort to create and re-invent' (Freire 1972 p.38).

Freire developed his ideas in the context of adult education and liberation from oppression. However many of his ideas have been taken up during the 1990s by development agencies interested in child education (such as UNICEF and the Child-to-Child Trust) to promote 'child power'. Critics of these ideas argue that children need guidance and not empowerment. The proponents argue that children have extraordinary and unique power to act as agents of change within their families and communities and should be helped to do so. They view empowerment as a process of capability building in children but stress that children should never be placed in a position where they are openly confronting the values of their parents or community. Different interpretations of 'child power' are explored further in chapter 4.

2.2.6 Education for all: The World Conference on Education for All (WCEFA 1990) promoted basic education as the means of achieving the global goal of 'Education for All'. Basic education refers to the child's first contact with the formal school system. The Conference advocated increased effort to ensure that schooling resulted in learning, to improve the quality and relevance of education and to decrease the very high drop out rates currently being experienced by many school systems around the world. The Declaration on Education for All raised important questions about how quality and relevance can be fairly assessed in a way which acknowledges the role of culture in the learning process. It recognised the need to strengthen political support and safeguard people's right to learn about important aspects of human culture and experience. This was an acknowledgement of the highly political nature of education and the way in which it is a tool of enculturation. These issues are explored further in chapter 10 through a case study of learning and schooling of Basarwa (Bushmen) children in Botswana.

2.2.7 Working definitions of learning and education: It is universally accepted that the purpose of education is to promote learning. Learning focuses on the psychological

processes which take place within the broader context of education. Working definitions have been developed for this thesis (building on a definition by Oxenham, 1991 p.9) which aim to reflect the distinction and the interrelationship between learning and education:

Learning is a complex social and psychological process by which we use all our senses, experience, memory and intelligence to acquire much behaviour, many habits and customs, all values, attitudes, knowledge and skills, both mental and muscular. It also comprises the processes by which we modify, refine, extend or develop what we know or can do.

Education is the empowerment of individuals through the provision of learning. It is the whole sum of a person's learning and what promotes or has promoted it, which enables him or her to think, and to use knowledge in order to survive and to become a fully developed member of society. Education is truly a human right and a responsibility.

These definitions reflect broad based, multidimensional models of learning and education which are able to cross the boundaries of discipline and culture. They acknowledge that social as well as psychological factors influence learning and education and acknowledge the interaction of stimuli from the body's senses with experience and intelligence. They also encompass the basic premise that learning is the core activity of education and occurs whenever one adopts new, or modifies existing, knowledge or behaviour patterns.

2.3 Health

It is difficult to define any universally acceptable conceptualization of health. Health is interpreted in very diverse ways by the different populations of the world and understanding of health is always evolving. For example, at the turn of the century in England, as a result of secularization, earlier notions of health being determined by God were replaced by ideas of health resulting from natural causes. By the 1960s an interactive model had emerged in which the individual has some ability to act and by the late 1980s and 1990s an intra-active model had evolved in which the individual is able to act upon himself or herself by adopting a healthy lifestyle.

It is important to recognise that these different interpretations of health reflect different

models of the individual which impact on health and lead to different solutions to health problems. The notion of an individual, and whether it exists in relation to health, is problematic. It should be questioned in view of the recent shift towards collectivist approaches which reflect increased recognition of the importance of social cultural and environmental influences on health (see Caldwell 1993). The various approaches to health can most usefully be analysed by the different socio-political philosophies which inform them. For example, it can be argued that a biomedical (curative) approach to health is informed by a deficit model in which individual inadequacies require correction, an ecological approach is informed by a deprivation model in which social injustices require resource redistribution, and a more radical pluralist approach is informed by an emancipation model requiring community mobilization and direct action. The value of a socio-political analysis of approaches to health has been recognized by Beattie, Gott, Jones and Sidell (1993 p.264) in developing an innovative series of models of health. For the purpose of this thesis it will be useful to look more closely at those concepts of health which have helped to shape Child-to-Child.

2.3.1 The WHO definition of health: This was first presented in the 1946 Constitution of the World Health Organization and is still widely quoted. Health is defined as 'a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity' (WHO 1984 p.1). This definition has been criticised for being too utopian. A complete state of well-being is idealistic and unattainable and therefore of little relevance to the lives of most individuals. Moreover representing health as a static state does not acknowledge its relative and dynamic nature or allow for improvement. Despite these criticisms, the WHO definition has merit in recognising health as more than the absence of disease and recognising three of its dimensions. It promotes health as a state of well-being, a notion which is currently enjoying popularity (Beattie et al 1993).

2.3.2 Health as a state of harmony and balance: The origins of popular concepts of health can often be traced back to the thinking of early Greek philosophers such as Hippocrates whose doctrine of 'universal sympathy' or harmony viewed health as a state of balance or equilibrium between the internal and external environments of an individual.

The external environment was considered to comprise four elements, earth, air, fire and water. These notions are important because they are still reflected in the beliefs of many traditional societies and ancient religions for whom health involves living at peace with oneself and one's ancestors and the wider spiritual world. Most societies harbour the nebulous myth of a bygone 'Golden Era' which symbolises a time when people were essentially 'good' and lived in an ideal state of harmony amongst themselves and with nature. Rene Dubos (1979) draws on Rousseau's famous idealisation of 'the noble savage' to support his argument that health is a mirage which is central to man's striving to regain paradise on earth through a return to nature:

Man in his original state was good, healthy and happy and all his troubles came from the fact that civilization had spoiled him physically and corrupted him mentally... 'Hygiene' is less a science than a virtue. 'Sickness' being the result of straying away from the natural environment, the blessed original state of health and happiness could be recaptured only through abiding by the simple order and purity of nature (p.106).

This deep rooted belief that ill-health is a result of man's failure to achieve harmony with nature is still dominant in traditional agrarian societies which live closely with nature. It is also currently enjoying something of a renaissance in the developed world where it is attractive to the environmental lobby. The notion of health as universal harmony and balance is reflected in the texts and practices of Ayurvedic (herbalist) medicine, established throughout the Indian sub-continent. It can be argued this view of health is the one most widely held in the world today.

2.3.3 Health as the absence of disease: The alternative conceptualisation of health, informed by the doctrine of specific etiology, links disease with a precise cause derived from the medical sciences. This conceptualisation has resulted in the progressive medicalization of health in western countries over the last century and led to the development of a so-called 'medical model' of health. This model equates good health with the provision of good medical services to cure disease and regards the human body as a machine which is protected from disease primarily by external interventions. Tragically, this model has been exported to poor countries around the world and resulted in scarce resources being channelled into building hospitals to provide expert curative care

for the few which has left the health needs of the many largely unmet. To highlight the social injustice of this action, Morley and Lovel (1986 p.164) refer to hospitals as 'disease palaces'. Recognition of the inability of the medical model to prevent increasing inequalities in health has resulted in a global backlash against the medicalization of health. This backlash has also been fuelled by the radical critique of contemporary medicine which grew up in the 1970s through the writings of Cochran (1971), Illich (1976), McKeown (1976,1979) and others.

Illich's (1976) emotive, and much quoted, discourse on 'The Epidemics of Modern Medicine' argues that medicine is essentially sinister and produces so called 'iatrogenic' diseases. Such diseases are caused directly by medical treatment and result in 'medical nemesis' by producing a self-reinforcing loop of negative institutional feedback. According to Illich medicine is a direct threat to health because it removes the right of individuals to take control of their own lives and to deal with their own health problems. This debate has been taken further by McKeown (1979) in his seminal thesis 'The Role of Medicine: Dream, Mirage or Nemesis?' which argues that external influences and personal behaviour are the predominant determinants of health. There is now a substantial body of empirical evidence to show that although medical care has saved the lives of countless individuals it has contributed little to improving the health of nations. We will see in chapter 3 that the key to further improvement in health is now acknowledged to involve change in the social, cultural and behavioural determinants of health (Caldwell 1993).

2.3.4 A working definition of health: There are many useful definitions of health in the literature (Dubos 1979, WHO 1984, Kickbush 1986) but no universal definition has yet been agreed. A working definition needs to be positive, multidimensional (holistic), culture-free, able to surmount the constraints of different disciplinary boundaries, and to avoid the problematic notion of health as the sole possession of an individual. Bearing these criteria in mind the following working definition has been developed:

Health is a resource for life. It is a relative and positive concept emphasizing social, mental, emotional and spiritual wellbeing as well as physical capacities. It is the extent to which an individual or group is able to realise aspirations, satisfy needs and adapt to change in the environment.

This definition sees health as having no purpose of its own but only as a vehicle for living. It reflects a broad conceptualization of health which acknowledges its positive, relative and changing nature as well as its multiple causality. It emphasises social and personal resources, as well as physical capacities and acknowledges the importance of being able to adapt to change. It also allows for a collective as well as an individual dimension. We will see in chapter 4 and chapter 5 that the concept of health which informs Child-to-Child is very similar to our working definition, whereas the concept which informs the Little Teacher Programme in Botswana by contrast focuses more on the social health of the individual.

2.4 Health Education

It is important to examine theories and concepts of health education so that Child-to-Child can be located within a broad framework of ideas. Health education, only recently emerged as a discipline in its own right. It has been criticised for lacking any universally accepted philosophy, clear goals or unifying framework of theory and also because in practice it reflects a diverse range of processes. The substantial ideological differences which exist between the approaches being used have produced much divisive debate, volume 49 (1990) of the Health Education Journal being entirely devoted to this debate.

2.4.1 Models of health education: Health educators have been much concerned with developing working models to explain particular health education initiatives. This approach contrasts with that found in the more established disciplines of health and education where theoretical models are generally designed to help clarify and develop concepts and facilitate the testing of theory against practice. According to Rawson (1992 pp.206-212) there are now well over a hundred health education models to choose from and numerous taxonomies. The proliferation of models has generated a substantial literature (Ewles and Simmet 1985; French and Adam 1986; Downie, Fyfe and Tannahill 1990; Tones, Tilford and Robinson 1990; Macdonald 1993.)

Three dominant models can be distinguished - prevention, social action and self-empowerment. In the preventive model the goal of the health educator is to persuade the individual to adopt positive health behaviours and so prevent disease. Tones et al (1990) argue that this model is endowed with conservative and paternalistic values and reflects an approach to health education commonly known as the 'healthy lifestyles' approach. Health education informed by this model can be criticised as unethical because its goal is to change behaviour by fair means or foul (philosophically speaking). It can also lead to 'victim blaming' by ignoring social and environmental determinants of health.

In the more radical-political models the educator aims to raise critical consciousness and empower community groups to take social action to reduce structural barriers to health improvement. In the self-empowerment model the educator provides information and helps clarify values underlying decision-making, but does not persuade. This model stresses the need for informed consent in contrast to models of propaganda, persuasion, instruction and even training which give no thought to the moral outcome of learning.

Preventive, social action and self-empowerment models represent fundamental dichotomies within the theory of health education. For example the self-empowerment model is ideologically opposed to the preventive model. In practice, however, the ideological differences between the different models of health education are often somewhat reconciled. Moreover the simultaneous application of multiple theories and models is not only desirable but necessary for effective health education:

No single theory is sufficient to guide the development, operation, and management of an effective health education programme. Decisions about appropriate methodology, strategic application, management, and evaluation are almost always based on the complementary application of social, behavioural, educational, biomedical, and organizational models for change. (Dhillon and Tolsma, 1992 p.7)

We will see in chapter 4 that Child-to-Child is informed largely by the preventive and self-empowerment models of health education. Child-to-Child aims to build children's capabilities to take preventive health action. The approach also recognises that children have an extraordinary and unique power to act as agents of social change within their

communities and argues that they should be helped to do so.

2.4.2 A working definition of health education: Drawing on definitions by Downie et al (1990 p.28) and by Dhillon and Tolsma (1992 p.8) the following working definition has been developed:

Health education is communication activity involving planned social actions and learning experiences designed to enable people to gain control over the determinants of health behaviours and the conditions that affect their health status and the health status of others. The aim of health education is to enhance positive health and prevent or diminish ill-health in individuals and groups.

This definition emphasises the need for health education to be a planned process and it allows for the application of conflicting educational theories and models. In stressing that the aim of health education is to enable people to gain control over the determinants of health behaviours it promotes self-empowerment and recognises the influence of what Green and Kreuter (1991) have called predisposing, enabling and reinforcing factors. It also recognises the need to work with policy makers, communities and individuals. The definition of health education which informs Child-to-Child conforms well to our working definition. Child-to-Child promotes a methodology which aims to involve children in active learning to build their capabilities for health action and promotes collaboration at all levels of those involved in improving health.

2.5 Health Promotion

In recent years health education has been located within the overarching concept of health promotion which recognizes the need to support health education through building healthy public policy and creating supportive environments for health. The health promotion movement gathered momentum during the 1980s in response to increasing awareness of the ecological reality of health and of the political dimensions of disease and health care. The publication of the Ottawa Charter for Health Promotion (WHO 1986) provided a valuable framework for programme development and officially launched a new public

health movement based on health promotion. WHO views health promotion as an overarching and unifying concept which builds on the earlier philosophy of Primary Health Care (PHC) encapsulated in the Alma Ata Declaration (WHO 1978). This earlier Declaration was the milestone in health development thinking and highlighted growing inequities in health. It was informed by an holistic concept of health, promoted intersectoral collaboration and enjoined all community members to take interest and action to preserve their own health and the health of fellow human beings. It emphasised people's right to health knowledge and skills and promoted prevention before cure. It questioned the engineering medico-technical intervention model of health and challenged the professional interests vested in the traditional system of medical care by advocating the reorientation of health services to shift resources away from hospitals and into community health activities. The PHC approach to health education places considerable emphasis on building people's confidence in their ability to take individual and collective action to improve health. It also advocates what Macdonald (1993 p.145) has referred to as 'life-context' education which recognises the need to take account of the social and environmental context within which behaviour change takes place. We will see in chapter 4 that the philosophy of Primary Health Care has particular importance for this thesis because it has directly informed the development of Child-to-Child.

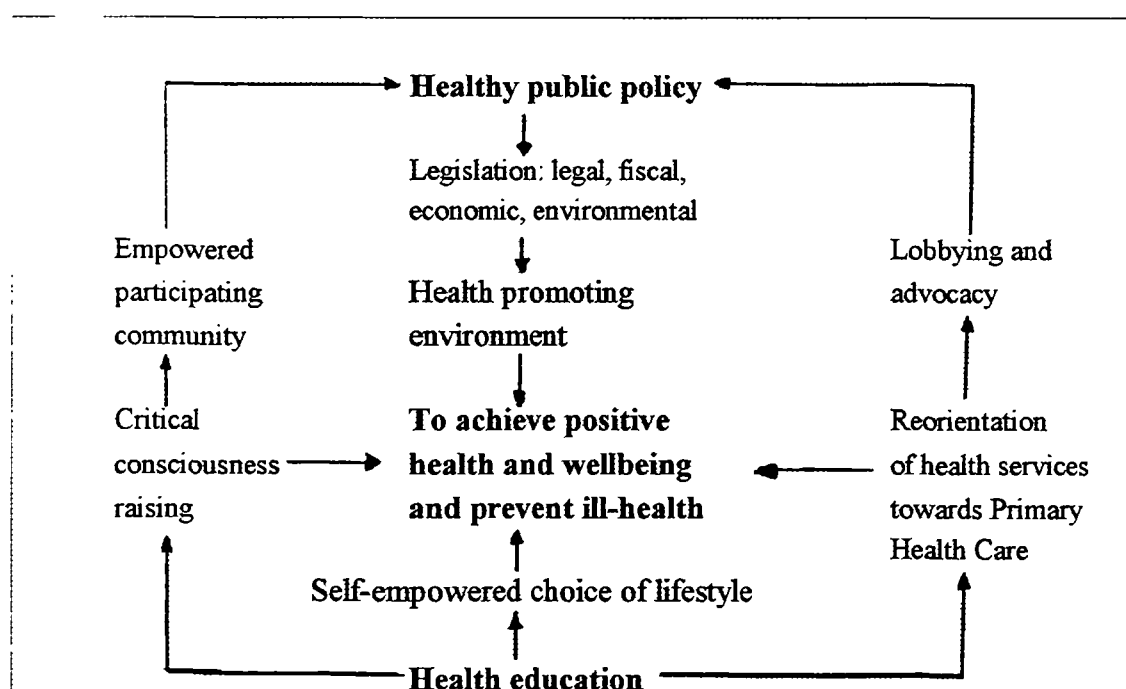
In 1986 WHO defined health promotion as 'the process of enabling people to increase control over, and to improve, their health' (p.1). The key word 'enabling' underscores the need for a shift in power over health from bureaucracies to people and recognises that power and control are the central issues in health promotion, just as they are in Primary Health Care. This definition also acknowledges the collective nature of health improvement and reinforces the argument presented above that an individual notion of health is problematic because people cannot be seen in social isolation. Individuals are embedded in systems that profoundly affect their behaviour and their health. To improve health, communities need to gain more control over these systems through their full involvement in decision-making processes.

As the health promotion movement has grown, the concept of health promotion has been

interpreted in increasingly diverse ways (Anderson 1984; Baric 1985; Green and Raeburn 1988; Kickbush 1990; Downie et al 1990). However within the literature three main themes can be distinguished which contribute to health promotion: Education, prevention and protection. Health education (as defined in our working definition) involves planned social actions and learning experiences to enable people to gain control over the determinants of health. WHO has coined the phrase 'education for health' to advocate this conceptualization of health education and it is being promoted as a key strategy for achieving the global goal of 'Health for All'. Health prevention involves the adoption of so-called 'healthy lifestyles' and the uptake of preventive health services such as childhood immunisation. Health protection refers to legal and fiscal measures to protect health.

2.5.1 The role of health education within health promotion: This is summarised in figure 2.1. Education contributes to health through preventive health education, professional education and agenda setting. Preventive health education traditionally includes efforts to influence individuals and groups to adopt healthy habits. Professional education involves health educators working with professionals from the health and

Figure 2.1 A model of health education within the framework of health promotion (adapted from Tones et al 1990)



health-related disciplines to develop communication skills and to encourage them to take greater responsibility for health promotion. In this role the health educator also aims to facilitate the delivery of primary health services which meet real community needs. Agenda setting promotes social action designed to raise public awareness and put pressure on policy makers and politicians to implement policies which they may otherwise fail to implement on financial or ideological grounds. Agenda setting is informed by the Freirean notion of 'praxis' which involves individuals and groups reflecting critically on their lives and the environment in which they live and then taking action to improve the quality of their lives. Community action includes individuals and community groups in social encounters which require good communication skills for effective advocacy, lobbying and mediation. Examples of public health policies in the UK include fluoridation of water, restrictions on tobacco advertising and legislation on wearing car seat-belts. Examples from Botswana include food safety and hygiene legislation, the use of safe water supplies, regulation of the price of staple foodstuffs and the wearing of hard hats on motor bikes.

2.5.2 A working definition of health promotion: The following working definition has been developed which draws on a definition by Tones et al (1990 p.4):

Health promotion is any combination of education and related legal, fiscal, economic, environmental and organizational interventions designed to facilitate the achievement of positive health and wellbeing and the prevention of ill-health.

This definition recognises the underlying determinants of health. It includes the three main components of health promotion - education, prevention and protection and reflects a positive conceptualisation of health.

2.6 Summary

The purpose of this chapter has been to review the literature which informs health education so as to enable Child-to-Child to be located within a broader framework of ideas. Theories and concepts of learning, education, health, health education and health promotion have been critically analysed and working definitions developed. Special

attention has been given to theories of active learning and to child-centred and peer approaches to education because they are central to Child-to-Child. Health has been defined as a positive concept with multiple dimensions and multiple causation and different models of health have been analysed from a sociopolitical viewpoint to highlight the shift away from individualistic towards collectivist approaches. Three models of health education which inform Child-to-Child have been examined. This chapter has argued that effective health education needs to be a systematic, planned process designed to enable people to gain control over the determinants of health. This approach has guided the development of the step-by step Child-to-Child methodology which will be detailed in chapter 4. Finally, the notion of health promotion as an overarching concept has been explored and health education located within this broader framework.

Chapter 3 EDUCATION AND HEALTH FOR DEVELOPMENT

This chapter further develops the theoretical basis for the thesis to increase understanding of the context in which Child-to-Child was originally formulated and in which it has subsequently developed. It provides background for the detailed analysis of Child-to-Child presented in chapter 4 and examines the evidence for the assumptions that educating children for health can lead to health improvement and also that healthy children can learn better at school. These assumptions underpin Child-to-Child. This chapter firstly addresses the recent paradigm shift in development thinking and then focuses on issues around education and development, education and health, and health and development.

3.1 Shifting paradigms of development

In recent years a significant change in thinking about how development occurs has amounted to a paradigm shift. Neither economic growth nor the redistribution of income is now regarded as an adequate single measure of the development process. The new focus is on human resource development (HRD) measured by a scale called the Human Development Index (HDI). HRD takes account of the growth and liberation of people and accords a central role to education and health as a means of improving the quality of life. HRD takes into account the importance of ethical and spiritual values and stresses the need to enable the poor to become active participants in solving their own problems and in shaping their own destiny. HRD is now promoted by all major international development agencies (WHO 1988; UNDP 1990).

3.1.1 A working definition of development: This definition has been developed to reflect the new paradigm which draws on a definition by the UNDP (1990):

Development it is about enlarging the choices which people can make. This involves the growth of people as well as income, the quality of life, the participation of people in their own development and human freedom. Neither economic growth nor the redistribution of income can be construed as ends in themselves; both serve human development as much as human development serves them and education serves all three.

This definition acknowledges the importance of increasing people's choices of which a long and healthy life, the acquisition of knowledge and access to a decent standard of living are arguably priorities. It also recognises important synergisms between human resource development and political and economic freedom. Investment in schooling and health together with economic policies to alleviate poverty and efforts to promote the rights and status of women are now considered to be the keys for transforming vicious cycles of poverty, malnutrition, disease and ignorance into 'virtuous cycles' of learning and health, equity and sustainable development (World Bank 1993).

3.2 Education and Development

Education lays the foundation for development, being critical to both economic growth and human development. However the relationship is not a simple one of cause and effect. History has shown that education alone is unable to produce the desired development and although education is currently enjoying a central role in the development process, it has not always been regarded so highly. Reflecting on the fluctuating fortunes of education in recent times Little (1992) has commented humorously that 'education, the-innocent-turned-villain, is cast once again by the international development planners in a positive role whose character is tinged with that of the saviour rescuing us from our perils' (p.1).

Human Capital theory (Schultz 1961) has preoccupied economists and strongly influenced thinking in education and development since the 1960s whereas sociologists have developed a social-psychological theory known as Modernisation theory (Anderson and Bowman 1966; Inkeles and Smith 1974; McClelland 1961). These theories are severely criticised, however, by those who reject capitalist-orientated society and see education being used to perpetuate or reproduce inequalities within society. The thinking of these theorists is informed by the reactive theories of Marxism (Bowles and Gintis 1976; Fagerlind and Saha 1989), Neo-Marxism (Illich 1973; Apple 1982) and Dependency theory (Carnoy 1974). The extensive literature on education and development can be

accessed through two comprehensive overviews of theories and concepts (Fagerlind and Saha 1989; Little and Yates 1991). Evidence for the effects of education on development objectives is the focus of a review by Lewin (1993) in which he draws on two earlier papers by Lewin, Little and Colclough (1983a, 1983b).

3.2.1 Proactive theories of education and development: After the second world war education was grasped as a means of producing the 'human capital' needed to fuel economic growth and recovery in Europe. Human capital refers to the volume and productivity of human labour within a nation. Human Capital theory has been clearly articulated by Schultz (1961, 1971) who argues for investment in education on the grounds that an educated population provides the type of labour force needed to improve human capital. This theory is supported by evidence to show a consistent empirical relationship between levels of education and economic levels of development among countries. For example, Psacharopoulos (1985) demonstrated that all rates of return on investment in education were above the 10% criterion of the opportunity cost of capital in each of the 44 countries he studied and that rates of return were higher in less developed countries. Schultz (1971) also recognised that investment in 'child capital' could be a key to development:

The formation of 'child capital' by the household, man and wife, would begin with the bearing of children and proceed through their rearing throughout childhood..... and may hold the key to an economic theory of population (p.vii).

Human Capital theory is currently enjoying increased popularity even though it had previously been criticised for failing to reduce inequalities in societies despite the rapid and massive educational expansion which has taken place in most countries. It ignores the influence of incentives and job satisfaction on labour productivity and assumes erroneously that the better educated necessarily get better jobs and are more productive. (As we will see in chapter 5, this has been the experience in Botswana where education has failed to increase productivity and new approaches to educational planning are being sought.) Furthermore the rapid pace of development in Japan and Korea was not founded solely on mass literacy and numeracy but on socioeconomic regulation, land reform, and modern economic management (Hallak 1990).

Modernization theory was first fully elucidated in 1961 in McClelland's seminal book 'The Achieving Society'. This theory argues for a direct causal link between modernizing institutions, modern values, modern behaviour, modern society and economic development. McClelland identifies a personality characteristic in society, called 'achievement motivation', which involves early socialization. He considers it to be the key to accelerating economic growth. McClelland's views are endorsed by later writers such as Inkeles and Smith (1974) who contend that 'it is impossible for a state to move into the twentieth century if its people continue to live in an earlier era' (p.4). They view schooling in developing countries as a powerful means of inculcating modern attitudes, values and behaviour.

In response to acceptance of education as the key to modernisation school enrolment increased impressively during the 1960s. Governments of newly independent countries also grasped education as a means of creating a new national identity, promoting it as a basic human right and changing its established features to forge and safeguard national unity. At this time there was rapid growth in nonformal education. This provided mostly for the poorest children who, for social and economic reasons, could not find a place in the formal system and offered an alternative education for those disillusioned with the formal system (Hallak 1990). We will see in chapter 4 that this expansion of the nonformal sector facilitated rapid uptake of Child-to-Child during the 1970s and early 1980s.

Modernization theory has been much criticised although it still informs education planning in many countries. It has been largely discredited because there is insufficient evidence that modern attributes lead to socioeconomic development (Fagerlind and Saha 1989; Portes 1973) and modern values have been blamed for the professional 'brain drain' from developing to developed countries (Portes 1973). The way in which modernization has been equated with Westernization has been criticised for displaying a biased and ethnocentric viewpoint, for implying that the traditions of a society are backward and for ignoring the impact of more developed countries on those less developed (Illich 1973). Modernisation theory assumes that the traditional and the modern are in competition, yet

some of the most successful countries in the developing world have shown that modern attitudes and values are not incompatible with traditional ones. Japan has achieved accelerated economic development by accepting new technological ideas and implementing them within their traditional cultural systems.

Against all predictions, the heavy investment in education and training during the 1950's and 1960's failed to produce the desired development. Economic growth stagnated, rates of unemployment among the educated rose and income disparities increased. Subsequently disillusionment with education set in during the 1970s and in 1976 Dore elucidated his thesis of 'late development'. He coined the phrase 'the Diploma Disease' to describe the way in which acquiring qualifications ('credentialling') had too often become the be-all and end-all of schooling as formal qualifications became increasingly important for securing a job. His thesis is a predominantly sociological analysis. It argues that educational quality is partly determined by the way in which the labour market uses educational certificates for recruitment and that this use in turn depends on the time in world history at which the move towards industrial development is started:

The later development starts the more widely education certificates are used for occupational selection; the faster the rate of qualification inflation and the more exam-orientated schooling becomes at the expense of genuine education. (Dore 1976 p.72)

This focus on the acquisition of formal qualifications is clearly most worrying for poor countries where, as Little & Dore (1982) have also recognised, the premium placed on diplomas is highest and where the contribution that schools could make to solving the problems of development is crucial.

By the time disillusionment with formal education set in during the 1970s an acrimonious debate had developed as to whether formal education is a productive force for change or a reproductive force reinforcing existing inequities within society. This debate has attracted a large and diverse literature (Seers 1969; Ward 1974; Durkheim 1977; Bernstein 1979; Lewin et al 1983b; Blaug 1985; Borini 1986; Fagerlind and Saha 1989). Those who support investment in formal education draw on proactive theories of education and

development to argue that formal education promotes the skills and motivation necessary (though not sufficient) for productive behaviour leading to both economic and social development. Those who argue against investment in formal education draw on reactive Marxist or Neo-Marxist theories of education and development which are concerned with structural inequalities within society and argue for radical reform of education.

3.2.2 Reactive theories of education and development: According to Marxist theory education is a form of cultural and economic reproduction. Educational institutions in capitalist-oriented societies are a means of perpetuating the privileged classes and keeping the poor in their place. Capitalist-orientated society is repressive and inhumane. Class-based and individual behaviour is the product of historical forces rooted in material conditions. Conflict within society arises from exploitation by those who own the means of production (the bourgeoisie) of those who do not (the proletariat). Such conflict is accorded a central role in the theory of change. Consequently the Marxist theorists Bowles and Gintis (1976) refute the assumption that development follows a linear or stage-by-stage pattern and contend that change comes about through revolution.

Recent interpretations of Marx's original position give greater weight in the reproduction process to schooling because in schooling reproduction takes its most organized form. The radical critiques of writers such as Illich (1973) constitute a strong and persuasive challenge to the education-development hypothesis. Illich's call for "deschooling" (discussed in chapter 2 p.29) warned that expansion of schooling would aggravate inequalities within less developed countries. Although there is much support in the literature for the view that schools are institutions of economic and cultural reproduction the process by which this happens is exceptionally complex and not clearly understood (Apple 1982). This process will be explored further in chapter 10 in the context of schooling for Basarwa (Bushmen) children in Botswana.

Dependency theory, an alternative perspective developed from the orthodox Marxist perspective, rests on the assumption that development and underdevelopment, as relational concepts within and between societies, are inversely related (Fagerlind and Saha

1989). Dependency between the development of central societies and underdevelopment of peripheral or satellite societies is an historical and intentional process. Dependency theory focuses on social, cultural, political and economic processes by which poor countries are dependent on rich countries. It argues that these processes are identical to those whereby the metropolis dominates rural areas within a country. The school models adopted in peripheral countries depend on what is imposed on them from the core country and thus education is seen as perpetuating dependency and cultural imperialism. This theory has been criticised for failing to provide a viable strategy for development which is free of dependency on rich countries. Furthermore there is no explanation as to how the elites of a poor country, seen as collaborators of the elites of rich countries, can overcome self-interest in favour of the society as a whole. (These issues are also explored in chapter 10.)

Although polarising the issues around schooling as 'production or reproduction' has produced much lively debate and useful insight the two extreme perspectives are often assumed to have universal relevance. In fact they reflect a narrow conceptualisation of education and development, development confined to economic growth and education confined to formal schooling. This debate needs to acknowledge the influence of external and internal forces which act on a nation and it also needs to be located in historical time. Since the collapse of Communism in Russia and Eastern Europe it has become evident that, despite their Marxist perspectives, these countries have looked to education to control their own development plans and have experienced many of the problems which they had previously attributed to the capitalist system itself (Fagerlind and Saha 1989).

3.2.3 Education for All: Since the 1980s faith in education to promote development has been restored. There is a growing consensus in support of increased spending, particularly on basic education. We saw in chapter 2 (p.31) that the World Conference on Education for All (WCEFA 1990) hailed primary schools as major social institutions to reduce inequalities and contribute to democracy. This provided a strong mandate for education planners to argue for increased resources from national governments on ethical, economic, social, cultural and ecological grounds. However Lewin (1993) has found



much evidence that the recession, debt and structural adjustment have all impacted to reduce spending on education. In chapter 4 we will see how Child-to-Child claims to have capitalized on the publicity and the political will for change engendered by the goal of Education for All. In chapter 10 serious questions will be raised about the impact of primary schooling on educational equality in Botswana.

3.3 Education and Health

The literature on education and health is small in comparison to that on education and development. However there is a substantial literature around the effects of education on health status (Cochrane 1979; Lewin, Little and Colclough 1983b; Cochrane, Leslie and O'Hara 1980, 1982; Blaug 1985; Psacharopoulos 1985). There is also a small, but fast growing, literature on the effects of health status on educability (notably Pollitt 1984). A related literature focuses on education, health and the demographic transition (Caldwell 1986; Lewin 1993). The World Development Report 'Investing in Health' (World Bank 1993) is a major contribution to the literature providing a comprehensive review of evidence to link education and health as so-called 'energizers' of development.

3.3.1 Equity and Intersectoral Collaboration: The global goals of Health for All (WHO 1978) and Education for All (WCEFA 1990) were a response to perceived inequities in health and in education. These goals have recently been endorsed by the World Bank (1993). Calls for reform toward greater equity are supported by strong evidence that efforts to improve health and education are most effective when all members of society receive, at least, basic services (Caldwell 1986). (This evidence is reviewed later in this chapter in relation to the health transition). Despite these calls for reform it is still most common for the available health and education resources to be spent lavishly caring for or teaching a few. Reform is urgently needed to enable the most vulnerable groups to have first call on limited resources rather than those who are best able to pay.

Despite international rhetoric in support of investment in health care and education

national governments continue to place them at the bottom of the pile in terms of funding allocation. In most developing countries less than 12% of government spending is invested in the health and education of the poor majority (UNICEF 1992 p.29). Continued low spending reflects lack of political will to reduce inequalities. Development is also impeded by lack of skill in planning and managing health promotion programmes (Green and Kreuter 1991). Effective programmes need to be multifaceted to reduce poverty, to improve the quality and quantity of foodstuffs and water supplies and to safeguard the environment and women's rights.

Cooperation is vital for joint planning and sharing of available resources and also for the development and activation of effective structures to facilitate the coordination needed at all levels both within and between organizations. This requires coordination between ministries (especially those of education and health); between ministries and multinational corporations; between NGOs (international, national and local) and government organizations; between teacher training colleges and health training schools; between these training institutions, schools and health facilities; between teachers, parents, students, health workers, local community leaders and businesses; and between traditional healers, health workers and other extension workers. We will see in chapter 4 that effective coordination between health and education at all these levels is considered to be necessary for Child-to-Child to realise its potential for developing the 'Healthy School' initiative currently being promoted by WHO.

3.3.2 Education and health status: The development of Child-to-Child in the late 1970s was, in part, a response to strengthening evidence of the importance of investing in education as a means of improving health. In 1979 Susan Cochrane produced the first of a series of World Bank Staff Working papers on education and health which reviewed evidence on education and fertility. This paper found that although education may result in initial rises in fertility, 'in the long term fertility may be reduced as a result of recognizing the increased ability to have live births and the survival of those births' (p.141). In general more educated mothers tended to have smaller families providing education was sufficiently widely available to reach certain thresholds of educational level.

There is now a considerable body of evidence to demonstrate that education of females is inversely related to family size (World Bank 1992 p.8; Lewin 1993 p.8). It has also been demonstrated that fertility rates are closely related to child survival rates and to population growth rates, both of which impact on the demand for educational services. Moreover it is now established that households with more education enjoy better health, both for adults and for children. This result is strikingly consistent in a great number of studies, despite differences in research methods, time periods and population samples (World Bank 1993 p.42).

Education can play multiple and important roles in preventing death and disease but the relationship is not simple. A comparative study of health development measured gains in child health in 75 countries with different income levels between 1960 to 1987 (World Bank 1993 p.38). The results confirmed that in all countries only part of the gain came from initial levels of schooling in the population and income per capita (both of which produced benefits that persisted over time). Part of the gain came also from expansion of schooling, increases in income per capita and technological progress in science and medicine. However the relative contribution of these factors differed greatly between countries.

Demographic ageing and the health transition: In the long term improved health is an important factor in the demographic transition countries make from high fertility and high mortality rates to low fertility and low mortality rates in the course of development. Economic decline is currently trapping many developing countries in the so-called population 'transition gap' in which fertility rates remain high but mortality rates are lowered. This unstable state results in rapid population growth which dissipates the products of economic growth and slows development. The demographic transition has important implications for the provision of education services (see Lewin 1993) and of health services.

As countries develop infectious diseases are increasingly replaced by chronic diseases of maladaptation. This change in the disease pattern associated with development is

commonly called the health transition. Evidence that medical interventions can account at most for 10-15 years difference in life expectancy (cf. a 40 year difference in life expectancy between countries in the North and the South) has led to much effort to identify other factors involved. These other factors have been identified as cultural, social and behavioural determinants of health.

Caldwell (1986) analysed the process by which good health had been achieved in eleven poor countries where investment in basic education and health services has achieved remarkable national health improvement at low cost. The experiences of China, Costa Rica, Sri Lanka and Kerala State in India are frequently quoted examples. Caldwell found the strongest correlation with health success to be the educational levels of women of maternal age, followed closely by the practice of family planning and the education of men, and more distantly by the density of doctors and nutritional levels. He found a weak correlation with per capita income. Furthermore his study identified antecedent factors of health success in traditionally more egalitarian and democratic societies such as high levels of social and economic participation on the part of women and a demand for health services and education, especially the education of girls. These antecedents are long term assets ('health stocks') which persist over time and impact positively on health

The health transition has important implications for education as a basis for developing a society in which each citizen is equally able to access health information and take health action. Traditional health education curricula in many countries are hopelessly inadequate in equipping students to understand and influence the cultural, social and behavioural determinants of health. Innovative approaches are needed to enable professionals to learn how to work in partnership with individuals and communities. Recognition of this need is behind the recent upsurge of interest in Participatory Rural Appraisal (PRA) approaches which emphasise learning with and from local people in a relaxed and flexible way using powerful visualization of situations and knowledge generated through dialogue. Recently the acronym PLA (Participatory Learning and Action) has been adopted as a collective term to describe the growing body of participatory approaches and methodologies (IIED 1995). As we will see in chapter 4 Child-to-Child claims to have kept abreast of current

thinking and its methodology is informed by innovative and participatory approaches.

Maternal schooling and health: In developing countries there is a strong and well-established link between maternal education and the mortality rates of infants and young children. Evidence for this has been extensively reviewed (Cochrane et al. 1982; Morley and Lovel 1986; Caldwell 1993; World Bank 1993). Caldwell (1993) reports the findings of a United Nations study of 15 developing countries which concluded that child mortality was reduced by 6.8% for each year of maternal education. A study by Hobcraft (1993) comparing data on maternal education and child health from Indonesia, Kenya, Morocco and Peru suggests that where mothers have four or more years of schooling the risk of their children dying before they are two years old are greatly decreased. The World Bank (1993) also reports that well educated mothers can often manage to reduce the damage that poverty does to health. In the Cote d'Ivoire a survey of rural households showed that 24% of children with uneducated mothers were stunted compared to only 11% with mothers who had some schooling. There have also been calls for greater recognition of the impact of father's education: 'the extraordinary impact of maternal education has tended to obscure the fact that father's education, even when controlled for income, also strongly influences child survival in some countries equalling, or even exceeding the influence of mother's education' (Caldwell 1993).

The important questions are how and why education achieves this impact. The education of fathers appears to work mostly through increasing family income whereas educating women strengthens their ability to perform their role in creating healthy households including importantly their patterns of child care (World Bank 1993). Caldwell (1993) reports on a study in India which identified three factors which were critical to understanding the impact of maternal education on child health. Firstly, educated mothers assumed it was only natural for them to take their sick child to the doctor and secondly they spent longer discussing the child's sickness with the doctor. Thirdly, illiterate mothers failed to report lack of success of prescribed treatment because they lacked confidence in confronting a more powerful figure. It would therefore appear that maternal education improves child health by increasing motivation to take better care of children

and to begin to develop positive attitudes to, for example, clean water, sanitation, good nutrition and using western health services. Education also increases women's incomes and most importantly their autonomy to act within the family and community.

The above discussion has shown that there is strong evidence for investing in education, especially of women and girls, as a means of improving health. These findings are important because they support an assumption underlying Child-to-Child that educating children about health can improve their health and that of their families. These findings are also important because many Child-to-Child programmes such as the Little Teacher Programme in Botswana are especially successful at recruiting girls.

Education and HIV/AIDS: The AIDS pandemic presents a strong challenge to education at both macro and micro levels. Not only is the education sector of many countries faced with the loss of a substantial proportion of its professional workforce but AIDS also has implications for demographic trends, economic productivity and growth, agriculture, social cohesiveness, political stability and ultimately for human resource development (Lewin 1993; Carr-Hill 1994; Shaeffer 1994; Phillips and Verhasselt 1994). Reduced immunity from HIV has also lead to the resurgence of infections such as tuberculosis which was previously receding in many part of Africa and Asia but is now a major health hazard. In the absence of any cure, education is the only means of preventing further spread of the HIV virus and for enabling society to avoid discriminating against, and to care for, those already infected.

AIDS education frequently focuses on individual learning about how to practice 'safer sex'. However there is a strong argument for broadening the focus to increase understanding of the economic, social, cultural, societal and political behaviour motivations which encourage or restrict safer sexual behaviour. The HIV pandemic flourishes where individual capacity to learn and respond has been constrained, generally by belonging to a marginalized or stigmatized group. In many countries, for example, discrimination creates an environment of increased risk for women, linked directly with their unequal role, rights, status and economic position. It can therefore be argued that

a human rights framework should be used for developing educational programmes to combat AIDS. The school is an important forum for education about HIV and AIDS but this should be developed within a broad based, comprehensive framework of positive health and wellbeing. Children need information but equally importantly they need to develop essential life skills such as tolerance, compassion and decision-making powers. The Child-to-Child methodology, detailed in chapter 4, is appropriate for developing broad based sexual health programmes which include a focus on HIV and AIDS.

3.3.3 Health and Educability: There is a small but fast growing body of evidence to link the health and especially nutritional status of children with their educational achievement. Enough is now known to recommend health and nutrition programmes among efforts to increase school enrolment, decrease absenteeism, repetition and early drop-out and improve classroom performance (Pollitt 1984,1990; UNACC:SCN 1990). Consequently support for spending on health to increase returns on educational investment is being strongly endorsed by international development agencies:

Educating children at school on health should be given the highest priority, not for their health per se, but also from the perspective of education, since if they are to learn they need to be in good health. (Hiroshi Nakajima, Director General of the World Health Organization, WHO 1992, preface.)

Children do not come to school as blank slates. Much of their capacity for active learning is already formed. The effects of school inputs such as teacher training and textbooks depend ultimately on children's capacity to learn from them. The work of Ernesto Pollitt (1990) was instrumental in getting health onto the agenda of the 1990 World Conference on Education and in raising awareness that the remarkable increase in access to education seen in recent years has not been matched by a comparable improvement in the health of the school age population. Pollitt (1990) reviews evidence to link health and educability and strongly challenges education planners to take more account of the influence of nutritional status on learning achievement:

'Educational policy-makers and planners have overlooked nutrition and health as determinants of school entry, wastage and attainment.poor nutrition and health during the pre-school years can have long-term consequences affecting a child's later progress during the school period' (p.13).

Evidence to link nutritional status with educability also is reviewed in the 1993 World Bank Development report which recommends increased intervention through nutrition education, micronutrient fortification, micronutrient supplementation and food price subsidies. Many of these recommendations are directed towards improving the health of the school-age child and there is currently much interest in the school as an intervention site. A study in Guatemala (Martorell 1992) recently demonstrated that improved nutrition during early childhood was related to improved intellectual performance in adolescence and adulthood. This suggests that improved nutrition during early childhood has longer term pay-offs than previously documented.

The nature of the link between nutritional status and educability is complex. It involves problems arising from undernutrition as well as from specific nutritional deficiencies. Protein energy malnutrition progressively impairs children's intellectual development as it increases in severity and duration. A poor diet, intestinal worms and malaria cause iron deficiency anaemia which is a major cause of irreversible impairment of cognitive ability in preschool and early school-age children and which is also highly prevalent among post-pubertal girls and women. Iodine deficiency, the leading preventable cause of intellectual impairment in the world, causes mental retardation, delayed motor development, stunting, neuromuscular, speech and hearing disorders. Vitamin A deficiency is the major cause of reduced vision and blindness in children and is linked to increased mortality from infection especially measles, diarrhoeal diseases and acute respiratory tract infections.

Improving the health of school children provides a good opportunity for education and health professionals to work closely together. However differences of approach can be seen among major initiatives in this field. The Partnership for Child Development (Bundy and Hall 1992; WHO 1993) is largely concerned with the implementation and evaluation of a package of medical inputs in schools in five or six countries. These inputs include iron and iodine dietary supplements and antihelminthics for de-worming. Health education is included but has not been a priority. In contrast WHO's (1992a) Comprehensive School Health initiative has an increased focus on education for health as shown below.

3.3.4 Comprehensive school health education: Teaching which enables children to survive in their own environment (eg. what to eat, what to wear, how to keep safe and to observe elementary rules of hygiene) has traditionally been regarded as the function of the home. However following the World Conference on Education for All (WCEFA 1990) the primary school in most societies is now recognised to be the one way of reaching the child population and consequently there is wider acceptance of the principle that along with the teaching of 'the three Rs' (reading, writing and arithmetic) basic education should provide relevant and appropriate teaching necessary for the survival and health of the individual.

WHO's Comprehensive School Health Initiative is a broad based intersectoral approach which builds on experience worldwide. It aims to provide the impetus for mobilizing and strengthening health promotion and education activities at the local, national, regional and global levels to improve health through schools. The WHO (1992a) framework for the development of comprehensive school health programmes includes three main components: (i) a comprehensive health service for students and staff (ii) a healthy school environment and (iii) comprehensive school health education. Priority is given to the health education component which is based on an holistic understanding of health, utilises all educational opportunities for health, strives to harmonise the health messages and to empower children and youth to take action to improve health.

In November 1994 an updated rationale for the WHO initiative was developed as a background paper for an expert committee meeting on school health. This committee was convened in September 1995. This updated rationale reflects changing priorities within health education and development. In addition to the original three components it includes four more: Ensuring optimal use of scarce health and education resources; a positive approach to health promotion; outreach to parents and community; a move towards equity by raising the standard of schooling and the status of girls and women in the community.

3.4 Health and Development

There is a considerable body of literature on health and development much of which is concerned with a critical debate around the political economy of health (Werner 1977; Doyal 1979; Chambers 1983; Navarro 1984; Sanders 1985; Morley and Lovel 1986). This debate provides a searching analysis of the issues of power and domination both between and within countries in the context of health and development. It has constituted a powerful lobby for change and is further examined below. A useful way in to this debate is through Doyal's (1979) sensitive analysis which addresses concerns around medical practice and the reproduction of labour power under capitalism, the social production of health and illness and the social production of medical care. More recent literature centres around the impact of development policies on health and the impact of health on development policies. (This literature is extensively reviewed by Weil, Busan, Wilson, Reich and Bradley 1990.) A major underlying theme throughout this literature is that there is not a simple one-way correlation between fast development and better health. It is increasingly clear that development is often equated with different health and not simply better health.

A valuable overview of the interrelationships between health and development is provided by Phillips and Verhasselt (1994) who focus on four main issues: (i) The impact of health on global environmental change and on economic adjustment policies (ii) the potential for incorporating traditional medicine within modern health systems (iii) cultural and developmental factors underlying the global pattern of HIV/AIDS transmission and (iv) the impact of the global pharmaceutical industry on health development. This review then considers the impact of these issues on vulnerable groups (women, mothers and children, the elderly), community participation in Primary Health Care and the health of people living in cities in developing countries. Finally, the analysis turns to the realities in specific countries and areas.

There is much parallel thinking reflected in the literatures concerned with theories of health and development and education and development. Consequently a similar

framework to that used earlier in this chapter to analyse theories of education and development can also be applied to theories of health and development.

3.4.1 Health for increased productivity and improved returns on education: In the period following the Second World War standards of health declined and investing in health was seen as a means of ensuring both the quantity and productivity of the human capital needed for a productive labour force. Poor health and nutrition were considered undesirable because they reduced labour productivity and impaired ability to learn which resulted in a poor return on investments in education and training. The health of mothers was acknowledged to be critical to the health and well-being of children and was promoted to improve their eventual labour contribution. Similarly the prevention and control of communicable diseases was pursued because of the heavy toll placed on the economies of less developed countries through treatment costs and lowered productivity.

The response of WHO to post-war decline in standards of health was oriented towards disease control. During the 1950s WHO favoured mass vertical campaigns to control diseases including malaria, tuberculosis and trachoma. These campaigns delivered a simple technological 'fix' such as DDT spraying or administration of dapone which failed to work. Consequently during the 1960s WHO began to integrate these major programmes with general health services and to emphasise what they called Basic Health Services. In 1967 the emphasis shifted again to promoting health planning. In line with the thinking encapsulated in Modernization Theory importance was given to the acceptance of modern values, attitudes and behaviour which were informed by biomedical science as the basis for health development. Consequently traditional healers and their practices were seen as old-fashioned and were derided.

3.4.2 The political economy of health: During the 1970s, in the face of growing inequities between rich and poor both between and within countries, disillusionment with existing systems of health care set in. As we saw earlier in this chapter the economic model of education and development had become the subject of acrimonious debate centring on education as production or reproduction. This debate fuelled a parallel debate

around the political economy of health. Those who favoured Marxist and neo-Marxist perspectives argued for radical change within health systems in capitalist-oriented society. They saw the existing model of medical care as a highly significant factor in the reproduction of both the forces and relations of production. Consequently they argued that healthy children would themselves grow up to be the parents of healthy children because they had the means to access health (and education services) and because the system was self-reproducing. We saw in chapter 2 that Illich followed his thesis on 'deschooling society' (Illich 1973) with a parallel attack on the power of the medical profession in his much quoted thesis 'the Epidemics of Modern Medicine' (Illich 1976). With this thesis he helped to prepare the way for the reorientation of health services towards Primary Health Care. An equally savage attack was made by Doyal (1979) on capitalist and neo-capitalist expansion in the Third World which she claimed had systematically undermined the health of the population and created obstacles to the realization of effective health policies in these countries.

The search for new paths to learning and to health care which strengthened throughout the 1970s resulted in the two milestones in development thinking, the Faure Report (Faure et al 1972) and the Alma Ata Declaration (WHO 1978) which have been discussed in chapter 2. These documents advocated reform of health and education systems towards greater equity and strongly influenced the original formulation of Child-to-Child. Traditional medicine and those who practised it were now welcomed as partners for health and a new cadre of health worker was defined. This was the community health worker who was to be the agent of change to enable the community to become empowered and to fully participate in health development.

When the recent paradigm shift in development thinking occurred at the end of the 1980s health was acknowledged to be an integral part of development and social productivity intimately related to economic productivity. We saw earlier in this chapter that in 1990 indicators of health and nutritional status were included for the first time as measures of development (UNDP 1990).

3.4.3 Health impacts of debt and structural adjustment: Health expenditure has been falling in many countries. Stewart (1991) presents evidence to demonstrate that social sector spending per capita declined by 26% in Africa and 18% in Latin America between 1980 and 1985. A common proposition advanced to explain this reduction is that health has been 'crowded out' by escalating debt. It is plausible that high levels of debt servicing are related to lower levels of social sector expenditure because levels of debt have indeed been increasing (thirteenfold from 1970 to 1990 (UNDP 1992 p.45)) and the debt burden on developing countries continues to siphon off US\$170 billion a year (UNDP 1991 p.79). Concern for the impact of national debt on children has prompted UNICEF (1991a) to voice a strong warning:

..children are still paying heavily for their nation's debts; and the currency they are paying with is their opportunity for normal growth, their opportunity to be educated, and often their lives. ... it is the antithesis of civilization that so many millions of children should be continuing to pay such a price (p.11).

Structural adjustment programmes have also contributed to reduced social sector spending and been linked to lowered health status. Education, arguably more important to long term health than is the provision of curative medical services, has also suffered from these austerity programmes. Programmes of economic adjustment, developed in line with World Bank policy and imposed on countries as a loan condition, have been particularly criticised for failing to show adequate concern for the impact of their policies on the poor and most vulnerable groups in society, especially women and children. In many countries stabilisation and adjustment policies in combination with other factors have been shown to have had an adverse impact on the poorest (Lewin 1993). This adverse impact has led to calls for compensatory programmes to protect the basic health and nutrition of low-income groups and for the monitoring of living standards, health and nutrition (Cornia, Jolly and Stewart 1987). UNICEF (1991a) stress that social 'safety nets' should be a prime responsibility of the state to alleviate the detrimental effects of structural adjustment programmes on the health of the poor.

The World Bank has published programme evaluations from Sri Lanka, Brazil and Chile which demonstrate that not only can the poor be protected but that their living standards

and health status can improve during structural adjustment (Measham 1986). Despite such success stories the World Bank continues to attract criticism for its role in structural adjustment policies. Phillips and Verhasselt (1994 p.305) contend that attempts to recoup expenditure through the so-called 'cost recovery' schemes which have been tried (especially in Africa since the 1987 Bamako Initiative) will further exclude the poorest and most needy from essential drugs. The NGO community has continued to argue strongly that structural adjustment policies are increasing inequity between rich and poor. In 1994 a relatively small NGO in the UK called Christian Aid launched a brave campaign under the slogan 'Who rules the World?' which publicly challenged the World Bank to enter into dialogue over the effects of its structural adjustment policy on the poor.

3.4.4 The movement of populations: During the 1990s there has been unprecedented movement of populations in response to war, conflict and political violence, and natural disasters such as floods, hurricanes and earthquakes. In areas of Africa, South-East Asia, the former Soviet Union and former Yugoslavia there are now huge numbers of displaced persons and refugees who have special health and educational needs. They need shelter and without adequate food they become malnourished. They are often physically and psychologically traumatized. Moreover huge numbers of displaced persons can place intolerable burdens on the resources of poor host countries. Population movements are widely recognised to be an important cause of disease diffusion and have been implicated in the spread of cholera, malaria and HIV infection.

Conflict also disrupts health, education and welfare services and such disruption can be seriously damaging in the long term. In areas of conflict it is difficult to sustain preventive services such as immunisation and to sustain disease eradication programmes. Community conflict inevitably results in the breakdown of programmes dependent on community participation. The need for curative and rehabilitative services increases and by diverting economic resources and human energies into violence and struggle for survival there is less available for health, education and welfare. Child-to-Child has recognised the special needs of children living under especially difficult circumstances and developed health learning materials to help children living in camps.

3.4.5 Environmental change and health: Damage to the environment may harm human health and economic productivity and it is currently receiving a high profile on international agendas and in the media. The 1992 World Development Report of the World Bank has a particular focus on development and the environment and the WHO (1992b) report entitled 'Our Planet our earth' provides a comprehensive overview of the major issues. The World Development Report (1992 p.4) identifies priority health hazards caused by environmental mismanagement (water pollution, water scarcity, air pollution, solid and hazardous wastes, soil degradation, deforestation, loss of biodiversity and atmospheric changes) and identifies the consequences of these health hazards for productivity. The report argues that environmental degradation is increasing but that its extent varies between countries and with the nature and stage of industrialization. Consequently it recommends that each country needs to assess the extent of its own environmental degradation and set its own priorities.

3.4.6 Health and development policies: There are many documented cases of adverse health effects resulting from physical development schemes (Borini 1986; Weil et al 1990; Phillips and Verhasselt 1994). Dams, hydroelectric schemes and irrigation projects have often increased the incidence of water-related diseases such as malaria, bilharzia and hookworm (Hunter, Rey, Chu, Ade Kolu-John and Mott 1993). Increasing industrialization in many countries brings increased risk of health where legislation, environmental and health-and-safety controls are not yet in place. Many workers, including children, in industry, agriculture and other sectors are at daily risk from exposure to occupational health hazards, toxic substances and exploitative workplace practices. Economic development has been adversely affected where access to fertile areas and valuable natural resources have been restricted by the presence of disease vectors. In order to develop such areas many large programmes have been supported by the World Bank to eradicate diseases such as onchocerciasis (river blindness) in West Africa, trypanosomiasis (sleeping sickness) in Nigeria and malaria in Brazil and Indonesia (Measham 1986).

3.5 Summary

This chapter has extended the theoretical framework for the thesis by examining the theories which inform education and health in the context of development and by exploring their interrelationships. It has provided the background needed to understand the context in which Child-to-Child was originally formulated and to assess its claim to have continued to keep abreast of current thinking. The literature reviewed has also provided considerable evidence to support the assumptions underlying Child-to-Child which are that education can improve health and that healthy children learn better at school. Issues which pose an increasing challenge to both health and education have been identified. We will see in chapter 4 the extent to which Child-to-Child has responded to these concerns.

PART III A STUDY OF THE CHILD-TO-CHILD APPROACH

Organisational level	International level	National level
Who is involved?	academics/experts	the Board of the CHILD-to-child Foundation of Botswana and the Botswana Ministry of Education
What is going on?	conceptualising and disseminating Child-to-Child ideas and methods	the Board is responsible for designing, coordinating and evaluating the Little Teacher Programme
	<u>Ideas and Methods</u> Ch. 4 Child-to-Child: The Parameters	<u>Practice</u> Ch. 5 Primary Education in Botswana Ch. 6 Child-to-Child in Botswana

Chapter 4. CHILD-TO-CHILD: THE PARAMETERS

This chapter provides a detailed analysis and criticism of Child-to-Child. This analysis and criticism will be set within the frame of the history of Child-to-Child. Building on the theoretical context discussed in chapters 2 and 3 it critically examines theories and concepts underlying the original formulation of the approach and considers how far Child-to-Child has responded to innovation and change. By defining the theoretical framework of Child -to-Child the way is prepared for the comparison of theory to practice made in chapter 5 where the Child-to-Child Little Teacher Programme in Botswana is studied. The present chapter draws on primary and secondary analyses of the literature on Child-to-Child. Primary data are presented from structured interviews with two past Directors

of what is now the Child-to-Child Trust, Duncan Guthrie and Hugh Hawes. Information has also come from informal discussions with others who have been central to the inception of Child-to-Child and to the development of its ideas (David Morley, John Webb, Otto Wolff and Beverly Young).

The Child-to-Child literature published in English can be accessed through a review compiled by Richard Lansdown (1995). This account expands and updates three previous reviews (Feuerstein 1981, Somerset 1987 and Heslop 1991) and provides a list of major work in other languages. The published literature comprises four types of material:

- Publications by the Child-to-Child Trust in London including evaluations and major reports of programmes by Child-to-Child staff.
- Publications by others commissioned by the Child-to-Child Trust including reviews of activities and literature.
- Publications about Child to Child by outside organizations which review or evaluate activities.
- Reports and papers from international or regional meetings and workshops.

4.1 The origins and early dissemination of Child-to-Child

We saw in Chapters 2 and 3 that new paths to learning and to health care were being actively sought during the 1970s (Freire 1972; Faure 1972; Coombs 1968; Dore 1976; WHO 1978). Social responsibility, altruism and the fostering of helping behaviour was regarded as 'wholly desirable' (Foot, Morgan and Shute 1990 p.3) and helped to set the climate for Child-to-Child. The General Assembly of the United Nations officially designated 1979 the International Year of the Child and challenged all countries to critically review the programmes provided for children and consider how children's rights could be safeguarded and their lives bettered.

This challenge was the catalyst for the development of Child-to-Child. Otto Wolff, then Professor of Child Health at London University's Institute of Child Health, recalled that in 1977 he was approached to develop an initiative within the framework of the UN Year of the Child and a small grant was made available by what was then the British Ministry of Overseas Development. Wolff invited his colleague at the Institute of Child Health

Dr. David Morley, who was working in what was then the Tropical Child Health Unit, to undertake this task. Morley had a considerable international reputation for innovative thinking and was an opinion leader in the Primary Health Care movement. Guthrie (1991) recalled that:

Morley's original idea was based on what he had seen all over the less developed world, namely that older children in a family spend much of their time looking after their younger siblings. This existing relationship could, he believed, be used and developed for the informal teaching of health matters to the younger children in a community.

At an early stage Morley's ideas were shared with colleagues in what was then the Department of Education in Developing Countries at the University's sister Institute of Education. One of these colleagues, Hugh Hawes, played a central role in developing and disseminating the ideas and became the first Director of the Child-to-Child Trust in 1988. Another member of what Guthrie called the 'inner circle' was Beverly Young, an educationalist with the British Council who remained actively involved until his untimely death in 1991. Two other members of this group were David Werner and Stephen Varistandsel. Guthrie recalled the enormous drive and great excitement amongst this group of 'enthusiastic evangelists' who shared strong bonds of personal friendship as well as a firm commitment to building sustainable partnerships for child health and education. How far the success of Child-to-Child has continued to rely on the crusading spirit of its founding fathers (and how far it can succeed without their inspiration) is an issue which must be faced later.

It was agreed that an educational approach would be developed and two meetings were convened in April 1977 to undertake the task. Twenty people from thirteen countries formed the first working party in London. At a subsequent working party in Fittleworth in Sussex they were joined by 22 others from thirteen further countries. The Fittleworth meeting was chaired by Tom Lambo, the then Deputy Director of WHO, whose involvement reflected the interest shown by international agencies from the start. This meeting brought together experienced practitioners and renowned academics with the intention that dreams would be tailored to the realities of life. A photograph of the 'first networkers' meeting in Fittleworth in 1978 is presented in appendix 1 (p.A1).

The preface to the report of these meetings (CHILD-to-child 1978) provides a clear statement of the original conceptualization of Child-to-Child as: 'An international programme designed to teach and encourage school children to concern themselves with the health, welfare and development of their younger brothers and sisters and of other young children in the community'. The programme was unusual in that from the outset it was not formulated as a single blueprint to be applied to every situation but as a reservoir of ideas to be taken and adapted for use as starting points for developing more ideas.

The focus of the programme was to be the needs of children in rural and urban areas of poor countries. The needs of poor children in developed countries were deliberately excluded and consequently many people still regard Child-to-Child as solely a programme for children in developing countries. With hindsight it may be asked whether the potential applicability of Child-to-Child ideas to the developed world should not have been affirmed from the outset. The general principles were defined as 'respect and concern for children; belief that older children have a role to play in promoting the health of their younger brothers and sisters; understanding that there are ways in which this may be achieved' CHILD-to-child (1978 p.45). The activities were grouped under five headings: 'eating well, children as health workers, providing a healthy environment, children growing up and stimulating younger children' (p.25). At this early stage there was little recognition of the special needs of disabled children and those living in especially difficult circumstances. However there was recognition of the delicate balance which exists between encouraging and building on children's developing altruism and exploiting their use as parent substitutes without providing the support which children need (CHILD-to-child 1978 p.2). In practice this delicate balance has not always been achieved.

From the start it was also realised that parents might be influenced by the health messages brought home from school but according to Guthrie (1991) it was understood that this would not be the main thrust of the programme. Upper case letters were chosen for the first 'CHILD' to represent 'the big child' and lower case for the second 'child' to represent 'the small child'. Guthrie (1991) felt that this idiosyncrasy of mixing upper and lower case letters was useful 'as a gimmick to help the programme catch on and to visually reflect the

idea of the big child looking after the small child'. This gimmick undoubtedly appealed to some people and it is still used today by organisations such as the CHILD-to-child Foundation of Botswana. However as the concept has evolved the original mix of upper and lower case letters has become increasingly inappropriate and Child-to-Child being written in different ways has caused confusion.

4.1.1 Early dissemination of the ideas: The original formulation of the concept was disseminated in the first book, 'CHILD-to-child' (Aarons, Hawes and Gayton 1979). It contained health education materials called Activity Sheets, developed during the preliminary meetings. This book was regarded by Guthrie as the movement's 'Bible'. It was copyright free but provided little guidance on how the ideas might be used. Children were promoted as health workers and teachers working alongside adults as contributors as well as receivers of Child-to-Child ideas. The emphasis was on the contribution which schools could make. The contribution of other community groups was not sufficiently acknowledged. The ideas were taken up most rapidly by these groups who were most able to adapt them to the local context. Recognition of the dangers as well as the benefits of promoting children as change agents in traditional societies is reflected in the sentence *'No children should ever be placed in a position where they appear to be criticising or contradicting their parents or elders'* (p.14) - alone of all the recommendations printed in italics for greater emphasis. The opening passage and accompanying illustrations reflect the innovative 'style' of the approach (figure 4.1).

From the start Child-to-Child attempted to harness both political will and power to promote and disseminate its ideas and methods. The location chosen for the official launching of what was then called the CHILD-to-child Programme was 10 Downing Street, the residence of the British Prime Minister in London. At the suggestion of the Prime Minister's wife, Mrs. Callaghan, Guthrie subsequently explained the programme to the wife of the President of the United States of America, Rosalyn Carter, at the White House and, as he recalled, 'she immediately saw its implications for some inner cities and the Appalachians'. In 1979 the Child-to-Child logo was developed (figure 4.4). It quickly became known in education and health circles around the world. Guthrie recalled

that the original logo which is still used today was drawn by a friend 'without any charge'.

In the first two years the Child-to-Child coordination unit in London, administered by Guthrie, operated from a small office in the Institute of Child Health. This unit defined its aims as:

- to generate and publish ideas and materials related to the role children could play in helping others to improve their health
- to assist in the discussion and clarification of ways in which such ideas and materials could be effectively disseminated and their effect monitored
- to facilitate the exchange of information between sectors, agencies and countries concerning the ideas, their dissemination and their effect (Somerset 1987 p.vi).

Two years later Guthrie commissioned Feuerstein to produce the first evaluation of Child-to-Child (as we saw in chapter 1 p.9). She analysed information received from 113 respondents in at least 57 countries. Programmes had been introduced by individuals from the fields of health, education and community development nearly 40% of whom worked on a voluntary basis. At least 1¹/₄ million children were involved worldwide, more than

half of whom were in formal education but nearly 20% had never been to school. Feuerstein noted that a gap had already opened between theory and practice. The original principle of 'belief that older children have a role to play in promoting the health of their younger brothers and sisters' was reflected in practice but the other principles had been disregarded. Concern for children themselves, always fundamental to the philosophy of Child-to-Child, was not always evident in practice. This is not entirely surprising considering the low position frequently occupied by children in the social hierarchy and the way in which traditional patterns of child rearing centre on teaching children to respect and even to fear their elders. Feuerstein also found that many programmes lacked understanding of the child-centred methodology promoted by Child-to-Child which aims to challenge children to think and to solve problems. Before anything else the Child-to-Child approach requires a change of mind on the part of those adopting it. Where minds remain unchanged about the potential of children in the promotion of health the use of the name Child-to-Child attached to a programme or the use of Child-to-Child learning materials, will never secure the changes which Child-to-Child aspires to achieve.

4.1.2 Growth and development during the 1980s: As Child-to-Child continued to be spread rapidly no attempt was made to control the way in which its ideas were interpreted in practice. Indeed any such attempt would have been against the style of the movement. In response to deepening understanding of the power of the ideas and experience of the different ways in which it was being implemented the initial focus on better sibling care broadened. Figure 4.2 shows that it now included the power of children to influence their own age group, their families and community. These developments were acknowledged by a change in capitalization from CHILD-to-child to Child-to-Child. This was a most appropriate change and was welcomed by Dr. Pam Zinkin, a colleague at the Institute of Child Health, because it allowed for the fact that disabled children might be older than those who were helping them. However Guthrie regretted this change, he believed the original 'idiosyncratic mix of letters' helped Child-to-Child ideas to catch on quickly.

During the eighties the Child-to-Child Trust sought to move away from the earlier notion that Child-to-Child ideas constituted a health education programme. In 1988 Hawes

Figure 4.2 The broader conceptualization of Child-to-Child (source Morley and Pridmore 1993)

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stated that Child-to-Child 'prefers to see itself as an approach or movement' (p.25). This shift was an attempt to discourage people from thinking of Child-to-Child as a single blueprint and from supposing that they now had the panacea for all health education problems. The further aim was to encourage and facilitate the use of Child-to-Child ideas and methods within existing programmes which were not owned by the Child-to-Child Trust. Those who shaped the thinking of Child-to-Child saw that there can be no copyright on good ideas and welcomed the possibility that the Child-to-Child approach should be taken up and applied as widely as possible.

It is doubtful whether the attempts to make clearer what Child-to-Child is and what it is not have succeeded. Child-to-Child is still commonly viewed as a programme in which children teach other children about health. Furthermore where Child-to-Child ideas have been taken up by others what is then made of them cannot easily be monitored or assessed. Letting go control of the ideas has risked forfeiting the possibility of evaluating their effectiveness.

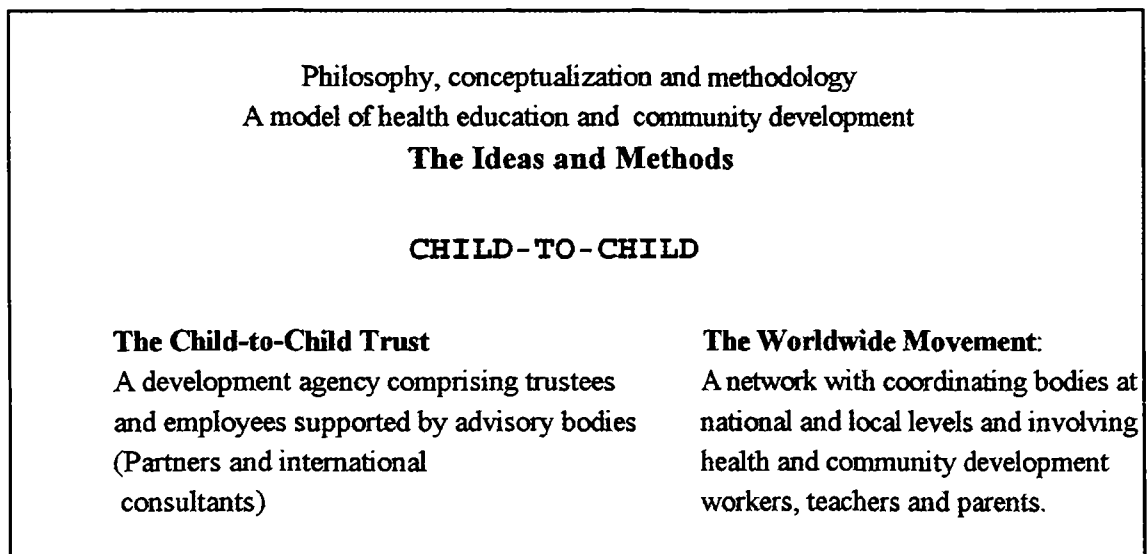
During the late 1980s (in the run up to the 1991 World Conference on Education for All discussed in Chapter 2 p.30) greater emphasis was given to the educational nature of Child-to-Child and to the approach being used within the formal education system where the largest mass of children could be reached. The concept of 'child power' was extended beyond the framework of Primary Health Care and into educational and environmental development. Children were increasingly valued as a rich resource for community development. The original focus of Child-to-Child on 7-10 year olds was extended to acknowledge that effective approaches to active learning and social development need to be a continuous process extending from home through preschool to primary school and beyond. Carnegie and Hawes (1990) contend that continuity of approach is paramount: 'Once the chain is broken and the child perceives that he is no longer invited to find out, ask questions, solve problems and cooperate with others then serious damage is done to the child and ultimately to the community in which that child lives' (p.50). The truth of this statement is considered in chapter 10 in relation to learning and schooling of Basarwa (Bushmen) children in Botswana.

4.2 Ideas and methods, the Trust and the Movement

To understand more fully what Child-to-Child now claims to have become it is important to examine the components shown in figure 4.3. The extent to which Child-to-Child is a model of health education and community development needs to be critically considered. The claim that Child-to-Child is at once a model of a development agency and a worldwide network concerned with implementation and advocacy must be discussed.

4.2.1 Child-to-Child: Ideas and methods: Child-to-Child is promoted as an innovative approach to basic learning and basic health care which both respects and challenges traditional attitudes. Child-to-Child builds on a tradition of children helping each other and their families and sharing their ideas but rejects the low position traditionally occupied by children in the social hierarchy. It supports the tradition of children as partners in child care and child development but also promotes them as

Figure 4.3 An overview of Child-to-Child



partners in decision-making processes. Child-to-Child acknowledges that children should never be put in a position where they are openly confronting the attitudes and values of their elders but aims to empower them as communicators of innovation in health and nutrition to families and communities. The Child-to-Child methodology promotes traditional pedagogy in using song and dance but rejects traditional didactic teaching. This tension between respect for tradition and commitment for change within the conceptualisation of Child-to-Child is a sophisticated approach more easily understood, at least by those trained to handle ideas, than applied in the field where the risk will always be that traditional assumptions about the role of the child will prevail.

The underlying philosophy of Child-to-Child continues to derive from a deep commitment to Primary Health Care, children as agents, and partnerships for health. The principle of Primary Health Care focuses on developing the power of individuals and communities to share responsibility for the improvement of their own health. Child-to-Child aims to develop children as partners in Primary Health Care. The principle of children as agents reflects faith in the power of children to spread health messages and health practices to younger children, peers, families and communities, together with the conviction that they should enjoy and profit from doing so. (Figure 4.4 provides a model of children as agents.)

Figure 4.4 Children as agents (adapted from Child-to-Child 1994b p.6)

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The use of terms such as ‘commitment’, ‘faith’ and ‘conviction’, in this summary of Child-to-Child philosophy reflects the almost religious belief of the advocates of Child-to-Child in the truth and importance of their cause. Such a belief however is not shared by most of the communities where Child-to-Child ideas are being implemented, societies where adults hold a very different view of children, a view of them no less strongly held that it remains unexamined and rarely articulated. Resistance to the principle of children as agents of change by those whose assumptions about children are very different from those of the western and westernised will prove as formidable an obstacle to the implementation of Child-to-Child as the structural, economic, and social conditions which impede its realisation in practice. It is more difficult to change minds than to sink wells.

Alongside the beliefs which inform Child-to-Child a methodology has been developed and informed by theories of active learning and empowerment education discussed in chapter 2. This methodology involves a cycle of awareness raising critical thinking, action and reflection requiring in turn:

- identifying and understanding the issue and its importance to children and their families
- deciding and planning what action children can do and who can help them
- taking action individually and together
- discussing and evaluating results and
- deciding how to do it better next time.

Figure 4.5 creatively depicts this process as the wheels of the ‘Facts for Life’ bus. Skills and competencies (shown as luggage) are developed as the bus travels along. Figure 4.6 shows how the process links learning in school with experience in the community.



Methods promoted by Child-to-Child to help children understand health issues, communicate messages and evaluate the effects of their actions are illustrated in figure 4.7.

Figure. 4.7 Active Methods for Learning (source: Hawes and Scotchmer 1993 p.22-23).

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The methodology has been reflected in the Activity Sheets which have continued to focus on priority health issues, providing up to date health information and suggesting activities intended to be both achievable and enjoyable for children. Since 1978 the original reservoir of ideas has been continually expanded, revised and updated. The Child-to-Child Resource book (1994a) published 35 Activity Sheets grouped into 8 categories. Recently added categories reflect current health concerns identified in chapter 3 (pp.66-67): Recognising and Helping the Disabled, Safe Life Styles and Children in Difficult Circumstances. Experience has shown that these activity sheets do little good unless

adapted to the local situation and incorporated into carefully structured lesson plans. This must be done without what is distinctively 'Child-to Child' about the material being lost. It is at this point, where the material is being modified for local use, that there is the danger that it is transposed into something else which is more congenial to those used to more didactic styles of education.

The Trust has also published resource books, study packs, graded child readers and an audio-tape made by children to promote Child-to-Child on the radio. Child-to-Child materials have been integrated into books by other authors notably 'Helping Health Workers Learn' (Werner and Bower 1982), 'Primary Health Education' (Young and Durston 1987) and 'Health Promotion and Community Action for Health in Developing Countries' (Dhillon and Phillip 1994). Child-to-Child materials are copyright free and it is evident that care is taken to avoid gender stereotyping, to stress the responsibility of boys for health care as well as girls and to address gender issues such as unequal access to food.

Child-to-Child ideas have spread rapidly around the world. As we have seen Child-to-Child's progress can largely be attributed to the personalities and drive of the founding members (especially Morley, Guthrie, Wolff, Hawes, Werner, Young and Vanistandsel) - despite the claim that it 'has been entirely dependent on the force and appeal of its ideas' (Carnegie 1991). Perhaps more significant as an explanation of its international growth has been the extent to which Child-to-Child has appealed to and has been endorsed at the highest professional and political levels - though this positive response is itself testimony to the eloquent advocacy of the powerful individuals who were lobbying for Child-to-Child at these levels. Morley (1993) acknowledges the extent to which the spread of Child-to-Child has been secured by continuing support from the British Council, the Aga Khan Foundation, and UNICEF country offices. In 1991 UNICEF publicly endorsed the work of the Child-to-Child Trust, presenting it with the Maurice Pate Award. In his presentation speech James Grant (then Director General of UNICEF) stated that the award was given in recognition of Child-to-Child's 'extraordinary and exemplary leadership in and contribution to the survival, protection and development of children worldwide'.

Many cultures, especially in Africa and Asia, have a powerful tradition of learning from great teachers. For example, in Tanzania former President Julius Nyerere has always been known to his people as '*Mwalimu*' (teacher). This tradition has facilitated dissemination of Child-to-Child because renowned and charismatic teachers have actively promoted it with the full support of their prestigious organizations behind them. Being based at the University of London has enabled the Trust to more easily build up an expert and influential group of teachers and scholars to support and contribute to the cause. Child-to-Child has benefited from the support of the international development agencies and capitalized on publicity and political will for change engendered by major WHO declarations, the World Summit for Children and the World Conference on Education for All.

This style of dissemination is not without its associated problems of dependency and paternalism. It is an irony that a movement which seeks to win its way by the strength of its ideas and which moreover holds up those who are traditionally least influential in society as potent instruments for change should owe its growth to the extent it does to powerful individuals and prestigious institutions.

From the outset Child-to-Child has claimed to keep 'one step ahead of the field' in developing its ideas and materials. It is now exploiting the higher profile being given to health education. Where no previous health education programmes have been in place, the high quality, lack of copyright and easy availability of Child-to-Child materials have greatly facilitated its adoption. Ideas have spread rapidly through the worldwide network aided by the flexibility of the concept and the freedom and encouragement given for local adaptation and for people to contribute new ideas and activities from their own experience. In some cases models of good practice have also helped. It has benefited from the support of the international development agencies and capitalized on publicity and political will for change engendered by major WHO declarations, the World Summit for Children and the World Conference on Education for All. As we have noted earlier devolving authority from the Trust has meant that important centres like CHETNA, ARC and CISAS could claim Child-to-Child as their own and 'run with it'.

All these factors have encouraged the rapid uptake of Child-to-Child ideas. It therefore becomes all the more important to recognise the fundamental problems in the dissemination of its methodology. Few facilitators have yet developed the special understanding and skills needed to work with children in a truly participatory way. There is little recognition that activity on its own is not enough, activity without understanding is not empowering. There is also a tension between the time needed for activities and the pressures of academic success. Stephens (1993 p.12) endorses this point. He records that teachers in Uganda are arguing that in order to be accorded more time and higher status health education should become part of the mainstream assessed curriculum. However such a development would threaten the child-centred nature of the approach and diminish its potential for health action and community impact. These issues are discussed further in relation to practice in Botswana in chapters 5 and 6.

4.2.2 The Child-to-Child Trust: In 1988 Child-to-Child was constituted as a charitable Trust jointly sponsored by the University of London Institutes of Education and Child Health. Its priorities were to keep up to date with emerging health needs and issues and to encourage the spread of Child-to-Child to the North as well as the South (Child-to-Child Trust 1990). Child-to-Child has been taken up and used in about eighty countries and materials have been written in, or translated into, more than twenty languages.

The Trust though not itself a development agency, provides an interesting model of how such an agency can be organised. The London office has always been small and highly cost efficient. Until recently it employed a Director, a programme officer and an administrative assistant. Following the resignation of the last Director the Trust has recently been restructured. The programme officer and executive secretary now work closely with a small number of designated 'Child-to-Child Partners' who have been instrumental in the development of Child-to-Child and give freely of their time and expertise. The Trust continues to rely on the support of volunteers who work in the office as well as the support of academics and practitioners who previously formed the steering committee. This committee has now been replaced by separate interest groups. There are also eight named international consultants who are actively committed to promoting Child-to-Child one of whom is the renowned health activist David Werner.

The Trust continues to promote Child-to-Child with an almost evangelistic enthusiasm. The religious analogy was accepted by Guthrie (1991) who noted the role of faith in the spread of religions. Those who 'believe in' Child-to-Child promote its ideas with a commitment born of the faith that those ideas are important and true. Such zeal advances the cause but at the price of objectivity.

The surviving members of Guthrie's original 'inner circle' remain prophetic figures and are still widely regarded in developing countries as 'Gurus', a role which, whatever their own wishes, they have found difficult to relinquish. Again we encounter the profound tension at the heart of the Child-to-Child movement. The claim of those who originally promoted Child-to-Child ideas has been to have renounced 'ownership' of them and that those ideas would spread by the force of their intrinsic appeal. In truth it has to be asked whether the message has yet been fully released from the power of the prophet.

Hawes (1991) rejects the notion of the Trust as a development agency, viewing it rather as a model of aid:

Child-to-Child has been demonstrably and amazingly successful as a pattern of aid. The fact that such an enormous amount of change take-up has been achieved by a tiny little unit working on a shoe string has demonstrated the value of high class professional involvement. One of the things that Child-to-Child has always stressed is that everything it sends out should be backed by the very highest expertise and sent out in a free flow situation without strings of ownership. This is an extremely important pattern.

Despite such claims, many health and education workers in the developing world still view Child-to-Child as a health education programme. They are often under the misconception that it is a programme developed for the UK which has been exported to developing countries and they most commonly consider the Trust as 'just another pot of money' to be tapped for programme development. The critical question is whether the true character of Child-to-Child - a fund of ideas rather than a fund of money - is easily grasped by health workers and others in developing countries conditioned to perceive aid largely in terms of the financial and material help it offers.

In the current climate of increased gender awareness the Trust can also be criticised for

failing to appoint women to positions of power and authority within the organisational structure despite the fact that they constitute the majority of the labour force. Only one of the five Trustees and one of the eight International Consultants are women and the pattern of appointment has resulted in an older (recently retired) man always being selected as Director of the Trust and working with much younger women as programme officers and administrators. The volunteers in the London office are usually women and women are in the majority in the newly formed specialist groups.

The Trust has always claimed to see the need to develop a *modus operandi* in line with the ethos of its guiding principles. It has sought to adopt a non-directive organizational culture and style of leadership and set up structures to stimulate ideas and facilitate sharing of experiences around the world. These structures include correspondence with individuals, the production and dissemination of an annual newsletter and report and frequent participation in national and regional meetings and workshops. The organisational culture is also reflected in the style of meetings, people are encouraged to share experiences and learn from each other and are given support and encouragement to increase their self confidence and motivation. Great importance is accorded to developing and maintaining a strong and positive group dynamic which is relaxed but enthusiastic and acknowledges the unique contribution which each participant makes. The importance of a social programme is fully recognised.

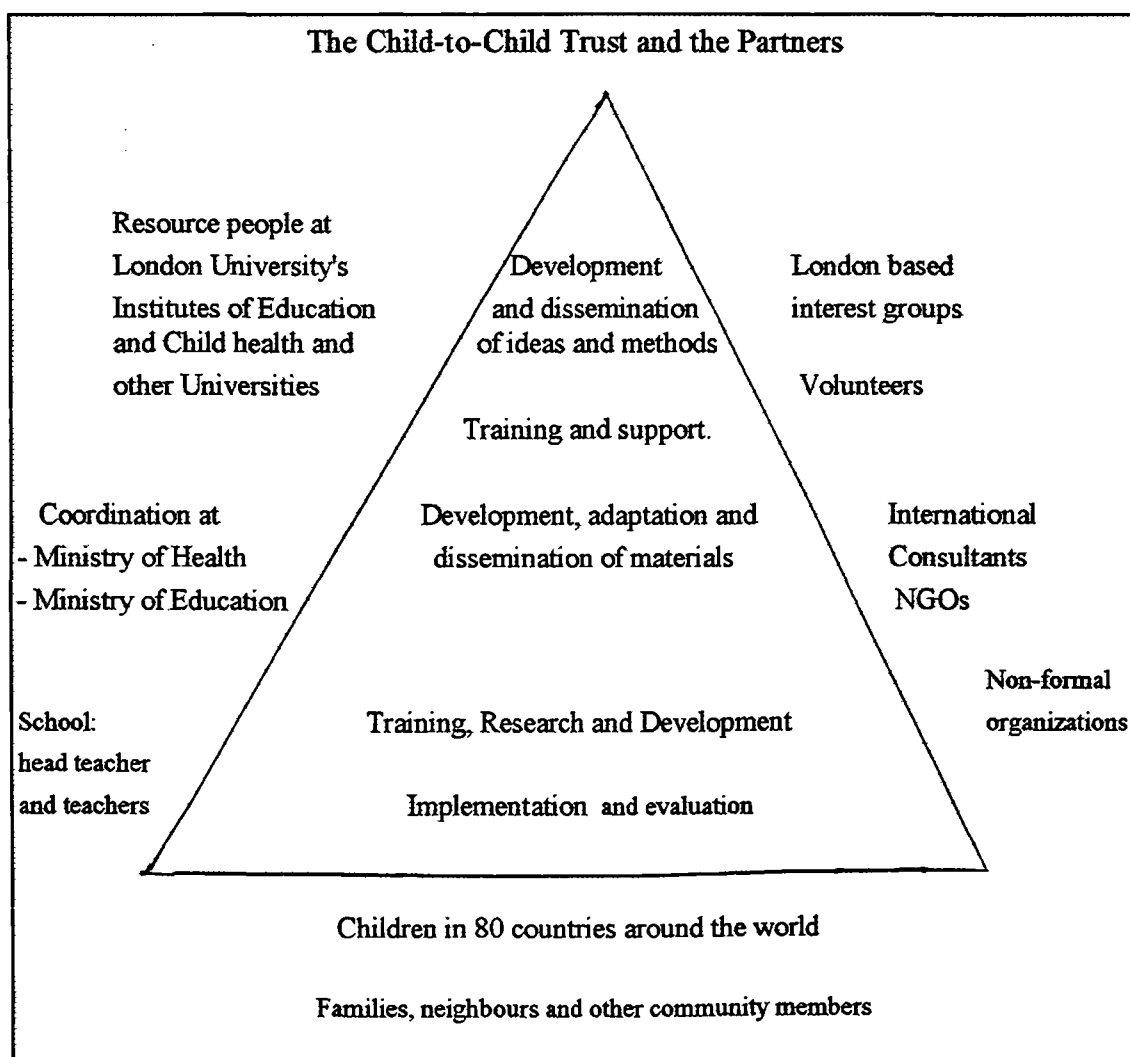
This approach has helped to build up a committed and capable caucus of advocates for Child-to-Child - even if such advocates are unlikely to be the most searching critics of the movement. Providing financial support and resource persons for such meetings and workshops around the world has proved to be a most effective strategy for dissemination and feedback of Child-to-Child ideas and practice.

In close co-operation with the Child-to-Child Trust a similar organization, *L'Enfant pour L'Enfant*, was founded in 1984 to reach out to Francophone countries. This organization has an office in the Institute of Health and Development at the University of Paris and also draws on the resources of the Centre for Research in Education and Health in Liege (Belgium), the International Catholic Children's Bureau (ICCB) and a network of African

partners. Child-to-Child and L'Enfant pour L'Enfant both promote child-centred approaches to health education and are currently orientated towards primary school-aged children. However L'Enfant pour L'Enfant is rather more directive in approach.

4.2.3 Child-to-Child: the Worldwide Movement: A worldwide movement has built up involving more than 80 countries and a wide range of people from the powerful presidents of countries to simple health workers and teachers. The hope is that members of this vast network share a concern for the health and wellbeing of children and the willingness to listen to ideas irrespective of status and the desire for health and education to work together. A model of the movement is shown in figure 4.8.

Figure 4.8 The Child-to-Child Movement



At the tip of the pyramid is the Trust in London supported by the newly designated Partners and resource persons in the interest groups, and at the base are the millions of children (and the adults working with them) who are actively involved in using the ideas. At other levels of the movement are the international consultants who provide expertise at national and international levels and those working in Ministries of Health and Education to initiate and coordinate school health programmes. The intention is that the movement should be based on partnership and dialogue at all levels, an intention shared not least by the founders of the movement even though, as we have seen, their personal standing remains such that they will be deferred to. Within the movement the Trust helps to strengthen links within regions and countries. It acts as a clearinghouse for information and has published Directories of Child-to-Child initiatives to disseminate details of activities and contact persons around the world (Child-to-Child 1993b, 1993c, 1993d). Although a more appropriate model for Child-to-Child would be circular (with all members of the movement holding hands in equal partnership) a triangular model is closer to current reality acknowledging differences in power between stakeholders.

4.3 Child-to-Child and Global Development Goals

We saw in chapters 2 and 3 that Child-to-Child has been shaped by three milestones in development thinking, the Declarations of Health for All (WHO 1978), the Rights of the Child (UNICEF 1990a) and Education for All (WCEFA 1990). These Declarations, made in recognition of growing concern that the world's health and education systems are in crisis, have stimulated wide ranging debate on effective strategies and approaches to achieve their ambitious goals.

4.3.1 Primary Health Care: Child-to-Child derives from the concept of Primary Health Care embodied in the Alma Ata Declaration and previously elaborated in chapter 2 (p.39). Within this framework Child-to-Child endorses the rights and responsibilities of children to participate and recognises their enormous potential for improving health. Child-to-Child operates with a broad model of health which includes physical, mental, and social dimensions and acknowledges the interaction of environmental factors (figure 4.9).

Figure 4.9 The Child-to-Child conceptualization of health (adapted from Hawes and Scotchmer 1993 p.14).

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4.3.2 The Rights of the Child: Child-to-Child ideas and methods are also integral to achieving the goals embedded in the 1990 Convention on the Rights of the Child. This Convention is an international instrument of law. In signing the Convention the heads of state at the World Summit for Children were making a declaration of intention that the articles included in the Convention would become part of the constitution of their own countries. Five of the articles in the convention specifically relate to children's participation. For example the Convention states that all children, without any exception, have the right to participate in issues which concern their welfare and to enjoy special care, protection, opportunities and facilities to enable them to develop in a healthy and normal manner. At the heart of Child-to-Child is the right of a child to participate as a subject and not merely as an object of development. However Child-to-Child stresses the need to balance rights with responsibilities: 'Just as adult citizens have rights and duties towards health, so do children (Hawes and Scotchmer 1993 p.16)' (Figure 4.10). Clearly the nature and degree of moral responsibility in childhood is a large and complex issue but Child-to-Child is surely right in recognising the growing capacity of children to take responsibility for themselves and others. Partnership with children is important because partners are people whom you respect and work with. Accepting children as partners

helps them develop and enhances their feelings of worth not only in their own eyes but in the eyes of adults.

However the notion of partnership with children is complex and can be problematic. If children's participation as partners is not to be mere tokenism, adults need to be flexible, and willing to trust children and to work alongside them. Working with children as partners requires that adults open their minds to the notion of partnership with children and that they stop to listen to children. The real challenge is for adults to let go of the control traditionally exercised over children and to learn to work with them as partners without imposing participation on them or expecting tireless devotion to task. Adults need to find the right balance between giving too much and too little guidance and

to learn when to follow and when to offer practical advice and support. Although children's participation in the work of the family and particularly in child care is traditional, the notion of children as partners in the decision making processes is both new and radical and some would argue that it is neither desirable nor achievable. It remains to be seen how far Child-to-Child will ever overcome traditional resistance to admitting children to the decision-making process.

4.3.3 Education for All: Within the framework of Education for All (elaborated in chapter 2 p.31) Child-to-Child poses two fundamental questions. Firstly, how can the content of basic education be reformed so that it reflects the real conditions in schools and the real needs of the children who attend them and of the parents who sacrifice to send them to school? Secondly, how do we define quality in school health education?

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To start answering these questions it is useful to compare the innovative ideology of Child-to-Child with the traditional model of health education dominant in the world today. Traditional health education reflects what Freire has termed the 'banking approach' to learning (see chapter 2 p.31). The teacher possesses the medical knowledge which he or she passes on to the children often through rote learning. The aim is to implant healthy and hygienic habits in each child and direct him or her towards a healthy lifestyle. Effectiveness is measured by the extent to which the learner implements the suggested activity. This model is fundamentally flawed because it emphasises action by the individual rather than by the community. By focusing on 'lifestyle' it ignores 'life context' in which social, cultural and environmental factors are major determinants of health. Consequently this model of health education is ineffective. This point is endorsed by Stephens (1993): '(Traditional health education) has had a negligible influence upon what children actually learn in the classroom, particularly when assessed in terms of community impact' (p.4).

Child-to-Child promotes an alternative model of health education which recognises the wide range of influences on children's health and attempts to take account of their pre-existing beliefs, values and attitudes. By focusing on the concepts of empowerment and active learning it claims the potential to develop children's capabilities and to enable them to understand their world better. These two concepts lie at the heart of Child-to-Child and are seen as the key to realising its educational potential. They reflect the fundamental principle that the child should **understand**. This point is elaborated by Somerset 1987):

The central and indispensable component of active learning is "inner activity" in which the learner constructs and reconstructs his system of knowledge, skills and values... As learning progresses, the ideas system becomes more complex, and in consequence a better model for understanding the outside world and acting in it (p.151).

Quite clearly health education is much more than conveying health information. It involves a complex and difficult process of learning, relearning and unlearning which presents a strong challenge to traditional pedagogic practice in schools. Many schools are good at conveying facts and many children are good at memorising them. However few schools are able to involve all children in the kind of active learning which helps them to understand relevant health issues, encourages them to take responsibility and develops their capabilities for useful health action.

This is where Child-to-Child becomes important as an alternative approach to basic teaching and learning. Many educators recognize Child-to-Child as a means of bringing active learning 'through the back door' into schools that use traditional methods (Phinney and Evans 1992/3). Child-to-Child demands that teachers adopt a new way of working with children which involves them in active learning. The teacher has to become a facilitator, challenging children to think critically about local health issues and helping them to understand these issues at their own developmental level. The teacher has to help them plan, implement and evaluate, useful and enjoyable health action based on a realistic assessment of the role which children can play. The question is how far the majority of teachers, particularly in communities where such an approach to children is quite novel, can be expected to develop such skills.

The active learning approach advocated by Child-to-Child does not need to be limited to health education. Evans advocates extending the approach (1993) arguing that the more it is seen as a way to 'help teachers do their job better ...(and) help teachers teach more easily the things they had found difficult, the more readily it is incorporated into a teacher's repertoire of behaviours'(p.6). The potential of the methodology for improving the quality of basic education is recognised by the Child-to-Child Trust which confines its own work within a broad conceptualization of health but actively encourages others to extend the methodology to different fields.

4.4 Problems and criticisms of Child-to-Child

Child-to-Child is open to six serious criticisms. Firstly, evidence for Child-to-Child's effectiveness is weak. Secondly, Child-to-Child's approach has not been clearly defined. Thirdly, where Child-to-Child is misunderstood there is the risk of children being exploited. Fourthly, Child-to-Child may be failing to recognise the realities of life for schoolchildren in many countries. Fifthly, Child-to-Child seriously underestimates the resistance that will be encountered in traditional non-western cultures to its ideas about children. Lastly, as a movement Child-to-Child, despite its claims to the contrary, is still too much controlled by the inspiration and influence of its founding fathers.

4.4.1 Lack of evidence for its effectiveness: The flexibility and adaptability of Child-to-Child has enabled it to be adopted in a wide range of contexts. Child-to-Child has been used in primary schools (and the communities they serve), in preschool programmes, in teacher training colleges, with non-formal groups such as scouts, guides and youth groups, with refugees and street children, in health training programmes and in health centres. One consequence of this diversity is that there has been little systematic attempt to analyse what can be accomplished by the approach. What evidence there is has been reviewed in chapter 1 (pp. 9-12).

Heslop (1991) and Lansdown (1995) have argued the need for ethnographically based accounts to illuminate the context into which Child-to-Child is implanted and for controlled impact studies on health behaviours or status using rigorous design. These research needs are also recognised by the Child-to-Child research group in London. However Hawes (1991) has questioned the weight placed upon quantitative impact measurements and called for more studies to evaluate the effects on the child of internalisation of the message, of passing it on and of cooperating in acting on it. He considers these effects to be the most important benefits of Child-to-Child. National evaluations of Child-to-Child activities in Uganda, Zambia, India and Botswana (see chapter 1 pp. 9-12) have helped strengthen evidence in support of Child-to-Child although more evidence is still needed. Aspects of the Child-to-Child Little Teacher Programme in Botswana are evaluated in subsequent chapters of this thesis.

4.4.2 Lack of clarity and agreement in defining the concept: The Child-to-Child concept is vulnerable because it lacks clear and agreed definition. This problem is recognised by Hawes (1991): ‘Some people claim the approach is a ‘catch-all’, it is too woolly and wide and you can use it like the Bible to prove your point on almost anything you want’. Consequently Child-to-Child can be difficult to explain succinctly to policy makers and may be unattractive because it works through other programmes and so disguises ownership. Dissemination strategies need to be skilfully managed. They tend to be responsive and intersectoral and do not fit easily into the project cycle which most governments and agencies favour. It can also be difficult for those accustomed to an input/output model of education in schools and colleges to understand and accept benefits

to the communicators of health activities not linked to a subject syllabus.

Another concern is the way in which Child-to-Child has been narrowly interpreted in some programmes which are resistant to change: 'You get a large number of people like in a religion claiming they have got the word... (they) have latched on to one element of Child-to-Child and will not hear of the others' (Hawes 1991). In some programmes children are known as 'little doctors' or 'little teachers'. These expressions give cause for concern where such programmes are informed by the traditional models of health and education which Child-to-Child is trying to replace.

4.4.3 Child exploitation: Child-to-Child can be misunderstood and rather than leading to 'child power' it could lead to child exploitation. We saw earlier in this chapter (p.82) that a gap very quickly opened between theory and practice and concern has since increased at the extent to which misunderstandings and corruptions have been observed in practice. There are concerns that effective learning methods are being used to communicate incorrect health messages and that traditional didactic methods are being justified in the name of Child-to-Child. There is also concern where the principle of child involvement has been misinterpreted and becomes child exploitation, for example where children are used as megaphones for adult messages or are required to dig latrines in Child-to-Child programmes.

The gulf between theory and practice makes it all the more important to define more clearly what Child-to-Child is and what it is not (figure 4.11) There is now some agreement that what is central and non-negotiable to Child-to-Child are these four cardinal principles:

- Child-to-Child involves children in useful and enjoyable activities appropriate to their age and ability.
- Child-to-Child develops partnerships for health at all levels, especially between health and education.
- Child-to-Child counts all children in.
- Child-to-Child does not belong to anyone.

Figure 4.11 What Child-to-Child is and what it is not (adapted from the report of a networking meeting on Child-to-Child in the Southern States of India 28 February to 2 March 1995).

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4.4.4 Failure to recognise the realities of life: The education systems of many countries are in crisis. Teachers are poorly trained, underpaid, overworked and demoralised. The curriculum is overcrowded, class sizes are large (frequently in excess of fifty children per class), buildings are dilapidated and there may be no latrines or water supply. Van der Vynckt (1992/3) has strongly lobbied for these realities to be given greater recognition in planning school health.

Child-to-Child depends on the willingness of teachers working under these difficult conditions to learn new skills and on their being able to develop sufficient competence and confident to use them effectively with large classes of children. Effective facilitation of child-centred learning is more demanding of teachers' physical and intellectual energy than traditional didactic teaching. Insufficient attention has hitherto been accorded to issues of teacher supervision, support and reward for successful introduction of child-centred learning methodologies.

The importance of environmental (non-behavioural) barriers to behaviour change have also been underestimated. These barriers involve issues of access and equity in relation

to economic, physical and service constraints and cast doubt on the extent to which health promotion on its own can improve health. The ability of children to make a difference must be viewed against the realities of life for children in many schools and communities.

4.4.5 Failure to recognise how difficult it is to change minds In addition to these environmental barriers to the effectiveness of Child-to-Child there is the barrier presented by the innate conservatism of teachers who have been traditionally trained. Child-to-Child requires them to change the way they relate to children in the classroom, to become more flexible and to trust children and work alongside them as partners. Children are the least powerful members of most societies and, where the concept and its implications have been fully understood, the idea of 'child power' can be threatening to teachers, communities and governments alike. In some cultures there may be resistance to the notion of children researching community health issues. We need to question the extent to which practice and theory have corresponded and how far Child-to-Child has ever really been fully implemented. It can be argued that Child-to-Child is a dream in the minds of the theoreticians which has yet to come true.

4.4.6 The continuing influence of 'the former prophets': Child-to-Child owes its origins and its development into a world-wide movement to the vision and energy of a number of remarkable people. They themselves have repeatedly insisted that Child-to-Child ideas have never been their property, or a domain over which they should have some continuing control. But as we have seen the respect in which these 'prophetic' figures are still held has not made it easy for them to fade from the scene even when they have wished to do so. The weight of their authority makes accurate balancing of the strengths and weaknesses of the Child-to-Child philosophy on its own merits more difficult than would be the appraisal of a movement less associated with its prime movers. In this respect it is clear that time will permit a more detached and objective appraisal of Child-to-Child than is now possible. Conclusions about Child-to-Child, not least the conclusions of this present study, must be provisional.

4.6 Summary

This chapter has traced the origins and development of Child-to-Child. It has drawn on the theoretical context provided by previous chapters to show how the original formulation of the approach reflected thinking in health and education in the late 1970s and how it has sought to keep abreast of new thinking and to respond to experience. A distinction has been made between the three components of Child-to-Child which emerged during the 1980s - the ideas and methods, the Trust, and the worldwide movement. Reasons for the rapid dissemination of Child-to-Child ideas have been identified. Serious criticisms of the Child-to-Child approach have also been identified, discussed, and the weight of them recognised. The growing interest in Child-to-Child research has been noted and it has been argued that if Child-to-Child is to realise its potential for improving the quality of life for children into the next millennium evaluation data must be strengthened and the gap between theory and practice reduced.

Chapter 5 PRIMARY EDUCATION IN BOTSWANA

This chapter explores the context within which Child-to-Child is being implemented in Botswana. It provides a country profile and examines social organization amongst the majority Batswana population. Patterns of young child care and early socialisation are examined to reveal how the fast pace of change in society is impacting on child rearing practices. The provision of basic and preschool education is reviewed to increase understanding of the system within which the Child-to-Child Little Teacher Programme is implemented. This Programme involves primary school children performing the role of child educators and helping to teach preschool children and it is critically examined in chapter 6.

5.1 The Republic of Botswana: A country profile

5.1.1 Background information: Botswana is a large (582,000 sq. km.) landlocked country in southern Africa. It is bordered by South Africa in the south and southeast, Namibia in the west and north, and Zimbabwe in the northeast. It also has a narrow border with Zambia. (A map is provided in chapter 7 p.146.). It was previously the British Protectorate of Bechuanaland but gained independence in 1966. Its location has impacted on the history and development of the nation both before and since independence.

The climate is harsh with extremes of temperature and a brief rainy season from November to March. Most of western and central Botswana is covered by Kgalagadi (Kalahari) sands and scrub savannah. Severe drought is an ever-present threat which marginalises arable production and restricts diversification of the economy. However the dry climate, the existence of plant life, and the reasonable availability of underground water supplies make the area relatively disease free and therefore excellent for raising livestock (UNICEF 1989).

Botswana is one of the most sparsely populated countries in the world. The 1991 census recorded a total population of 1.3 million, with roughly half of the population living in crowded urban areas and the other half in the sparsely populated rural areas. There were rather more women than men and 42% of the population were under 15 years of age. The population growth rate is high and was predicted at 3.3% per annum for 1991-96 (Government of Botswana 1992a).

The official language of the country is English and the national language is Setswana. The majority Batswana population are related Bantu tribes who speak Setswana and are closely related to the Basotho of Lesotho. There is also a significant minority population of Bushmen who are the indigenous peoples of Botswana and have been subjugated over time, becoming increasingly impoverished. They are known as Basarwa but prefer to be called Bushmen to highlight their marginalized position and their diverse tribal origins. They are ethnically interrelated and speak a collection of 'click' languages called Sesarwa. (The situation of the Basarwa is explored further in chapter 10.)

At independence Botswana was classified as one of the 25 poorest countries in the world. Since then the country's economy has enjoyed one of the highest rates of growth in sub-Saharan Africa and it is now rated as a lower income country. GDP rose by 8.3% per annum between 1966-86 (UNICEF 1989). Fuelled largely by diamond exports, rapid growth led to a per capita GDP of 3000 (approx. £700) in 1990/91 (BSB 1992). Botswana has also used foreign aid to complement its own resources and encouraged donors to collaborate between themselves and with Botswana Ministries to deploy the aid more effectively. Botswana receives preferential access for its beef to the European Union. The strong economy and stable multi-party democracy has enabled the government to expand services such as health care, schooling and infrastructure, and to create employment opportunities. Average life expectancies have risen to 58 years for males and 62 years for females. Infant mortality has declined to 63.5 (deaths per thousand live births) and about 85 % of the population presently lives within a 15 kilometre radius of a health care facility (Ministry of Education 1990).

5.1.2 Poverty and ill health: Despite the economic success, over half of all households in Botswana are living in poverty as defined by the inability of a household to meet its basic nutritional, health, educational, shelter and recreational needs. These problems arise, in part, from the disadvantaged role of women in traditional society and, in part, from the rapid changes which have come about in recent years (eg. migration, urbanisation and dependence on a cash income). Poverty is highest in female-headed households because women are more affected than men by the distribution of assets (in particular cattle and other livestock), the distribution of other productive resources, the low returns for own-production, low wages for employment on farms, and unequal representation in secondary education.

Many households lack food and economic security and the level of malnutrition, which was considerable at 30% in 1984, has only been halved by the late 1980s by extensive drought relief feeding and employment interventions (UNICEF 1989). Malnutrition continues to be an underlying cause of child morbidity and mortality although impressive advances have been made in the area of early childhood immunisation. Although women have advanced in both traditional and contemporary areas, there are many constraints still to be addressed.

The dominant causes of ill-health in Botswana are infectious diseases linked to poor socioeconomic conditions which include lack of food and clean water and low levels of education. Acute respiratory infections and diarrhoeal diseases now top the list of diagnosed problems at health posts and, together with measles, account for most young child deaths. Amongst the more affluent urban population cardio-vascular diseases have become a major cause of morbidity and mortality as have degenerative diseases, metabolic diseases and road traffic accidents. In addition the incidence of AIDS is increasing with 178 cases reported by January 1991 (Ministry of Finance and Development Planning 1991). Primary Health Care has been accepted by the Government of Botswana as the most appropriate strategy for attaining the goal of Health for All by the Year 2000. A health education programme has been included within the Primary Health Care strategy with the aim of assisting individuals and communities to take responsibility for preventing

illness and promoting good health. Programme emphasis is on social mobilisation, community involvement and intersectoral collaboration (Ministry of Finance and Development Planning 1991).

5.1.3 Social organization and seasonal migration: Patriarchy is deeply rooted in Batswana society and is enshrined in the National Anthem 'Awake, awake! O men, awake! And women close behind them stand!'. Women are traditionally considered to be inferior to men and face a number of legal constraints related to inheritance, child support, and citizenship, among others. However it is increasingly recognised that women must be allowed to fully participate in the social and economic development of the country.

The Batswana traditionally live in very large villages which comprise related lineages and clans who have settled in various wards and can number 30,000 people or more. Each ward (*kgosi*) has a chief who is the most senior male member of a particular family group and his position passes to his eldest son when he dies. Generally speaking people from the same ward help each other in times of need. Members of the same village are generally related to each other through the male line and also belong to the same totem group. The social unity of the Batswana is strengthened by people identifying with totems which are traditionally animals. Some of the major totems in Botswana are crocodiles, monkeys, baboons and duikers. People who praise the same totem belong to each other and there is a strong belief that it would bring bad luck to the people if a member of the totem group killed their totem animal.

The chief's *kgotla* or meeting house has traditionally been a key vehicle for social mobilisation. Decisions are made during *kgotla* meetings which are universally open to all adult males regardless of their social position. In recent years women have also been permitted to participate in *kgotla* meetings. Although these meetings have retained little overt authority they play an influential position in politics and administration at the village and district levels.

Historically the village was surrounded in arable areas by 'the lands' beyond which were

the cattle posts. Many Batswana still retain a home in each of these places and some rural families still retain an unusual pattern of seasonal migration. Depending on the season members of a family may be living at any of three different places: the village where the main family house is built; the lands where crops are grown (mainly by the women); or the cattle post where the family herd is kept and tended by the male members of the family, often with hired help from the Basarwa. The cattle post is the man's domain and women are traditionally not allowed to enter the cattle kraal. It is only there that men will take on tasks such as cooking which are traditionally women's work.

Migration to the lands begins typically during the first major rains in November/December and migration back to the village begins after harvest (from May to August). Men usually accompany their wives to the lands during the rains to help with the ploughing but then move on to the cattle stations. This traditional pattern of seasonal migration is slowly changing. With better roads and transport school-age children now tend to live for longer periods in their main house in the village, often with little parental care. Girls visit their mother at the lands and boys visit their father on the cattle posts at weekends. The pattern of seasonal migration is important because it complicates the management of education, health and other services. However many families no longer migrate and have waged employment in the villages or nearby towns.

5.2 Patterns of young child care and early socialisation

5.2.1 Traditional patterns of child rearing: The development and education of Batswana children have historically been undertaken within the family. Early childhood socialization is the responsibility not only of the parents but also of the grandparents, older siblings, aunts, uncles and other relatives. All these relations contribute to the healthy physical and spiritual development of the young child as well as moulding acceptable societal norms, values and attitudes and developing language skills. However the most important of any Motswana's kindred is the uncle (the mother's brother or *malome*) who is the one who gives advice and support to the child, especially the boy child, and whose

permission has to be gained before marriage. This traditional pattern of child care and early socialisation is common to many countries in sub-Saharan Africa (Negussie 1990). In Botswana the extended family has been important in early childhood socialization because men have traditionally migrated to supply labour for the mines in South Africa and more recently for industry in the towns in Botswana which has meant that fathers are away from home for long periods of time.

Children are traditionally taught respect for all elders and veneration of seniors including older siblings. The paternal relatives (especially the child's uncle) have a particular responsibility for inculcating discipline. Maternal relatives tend to respond more tenderly and allow the young child more privileges. Introducing the young child to duties and responsibilities concerning the home and the lands is the responsibility of parents and elder siblings. The father and elder sons train the young boy to herd sheep, goats and calves on the cattle stations and to collect firewood. The mother and elder daughters train the young girl to take care of babies and carry out the other household tasks (cooking, cleaning, washing, sewing, collecting firewood and water). Young children are also strongly influenced by their peer group. Ngcongco (1990 p.32) argues that age-sets can be even more influential than the family in relation to loyalty to the group as well as in the sharing of goods.

This pattern of socialization is important because it demonstrates how Child-to-Child is at home in the culture. It is traditional for older children to be encouraged to look after younger ones and for those of the same peer group to play with each other and learn together. This point is endorsed by the National Symposium on the Care and Education of the Young Child in Botswana (UNICEF/MLGL 1990): 'The element of Child-to-Child education is inborn in our culture' (p.36). Further support for Child-to-Child building on traditional cultural practices has also come from Otaala, Myers and Landers (1988) who review Child-to-Child initiatives around the world in an historic context and conclude that the idea is acceptable and that it benefits older children, schools, families and communities.

Within Botswana society children are much loved and valued but occupy a low position

in the social hierarchy and are frequently subjected to physical discipline. Kgasa (1990), in a presentation to The National Symposium on the Care and Education of the Young Child in Botswana, expresses the view that socialization should be achieved through children being beaten into submission:

‘Any adult who sees a child misbehaving in any manner can reprimand or spank the child. The parents will tell the child that the adult is also his parent and endorse his reprimand or spanking. As the child grows he learns to respect all adults because he learns from other children that they too have been beaten. So all children come to obey all adults. In other words they come to obey society’ (p.34).

Kgasa (1990) also promotes the virtues of the ‘good’ family. The good family will be: ‘Hardworking, humble, not given to the practices of witchcraft or scandalous talks and known for strict codes of conduct’ (p.34). It is generally accepted that this harsh approach to socialization prepares the child to grow up to be an adult who will be productive and well-adjusted to fit into the extended family structure. We shall see in chapter 10 how this contrasts with the egalitarian nature of Basarwa (Bushmen) society where children are indulged and treated very gently. Consequently the corporal punishment meted out to them in government schools becomes intolerable and frequently causes them to drop out of school.

Part of the early socialisation of the child is their introduction to the world view of the Batswana. According to Adewole (1973) children are traditionally taught that their world is controlled by a powerful God called *Modimo*, sometimes depicted as a giant snake. He is associated with ‘high’ things which have mystical or supernatural power such as lightning (*legadima*). Children are also taught about *badimo*, semi-legendary god-like ancestors with magical powers, and *baloi* (usually translated as witches) who are also magical beings but believed to be real people. *Baloi* can be anybody, neighbours, relatives or anyone who practices magic and puts spells on people, their family crops and cattle. When something is wrong *baloi* are often blamed for causing the trouble. Belief in the power of *baloi* is very deeply rooted in the culture. *Baloi* only go about at night and lightning is believed to obey their command.

A Batswana chief interprets the will of *Modimo* for his people through contacting his *badimo* (ancestors) at his *kgotla*. The *kgotla* is holy ground because his ancestors are buried and continue to dwell there. To contact his ancestors the chief often calls in his spiritual advisors, *dingaka* or sorcerers, who combine the role of medical doctors with that of religious advisers and have much power over *baloi*. To the Batswana the health of a person is determined by *Modimo*. If he is healthy it is because *Modimo* is with him. If he is ill he will consult a *ngaka* (singular of *dingata*) to help him determine how to become well. The *dingata* interpret the will of *Modimo* through special bones of different animals which are thrown down on the ground. (In chapter 9 we will see that the perceptions of many of the Batswana children involved in the field study were still informed by these traditional beliefs.) Although traditional beliefs about health and illness are changing Haram (1991) contends that traditional ways have not been rejected. New ideas and practices are either fitted into already existing categories of thought or regarded as valuable for only certain sorts of ailments.

5.2.2 Changing patterns of child-rearing: Botswana society is undergoing rapid transition from traditional to modern lifestyles. Myers (1992) has drawn attention to the need for special attention to be given to child-rearing during such conditions because families need time to adapt to change. To avoid problems we need to know what child-rearing practices are being maintained and which are being lost and to identify areas where there is agreement and disagreement between traditional and modern beliefs and practices.

The fast pace of political and socioeconomic change, the adoption of western education and health care and new values taught by the Christian church in Botswana have all indirectly impacted on child-rearing practices. The influence of migration from rural to urban areas and migration across borders has weakened the support provided by the traditional extended family. The entry of mothers into the labour market and their participation in other development roles have resulted in many children being left with little care. Moreover older siblings are less able to provide care because most attend school for at least part of the day. It will be argued later in this chapter (p. 113) that these changes have created a growing demand for day-care centres to assist with child care and

development. The way in which women and girls have become the focus of international attention in recent years is also likely to have consequences for early childhood socialization. Child-rearing practices in Botswana which relied on the older girl child caring for the younger children in the family are now being challenged. UNICEF (1991b p.20) contends that most mothers still lack the knowledge and the information needed to change their own expectations and perception of the role of the girl child and that the socialisation of the girl child in the school continues to cement low self-esteem and acceptance of a lower standing than boys. UNICEF also argues that the responsibilities of the girl child in the family tend to compete with learning activities because girls are generally expected to perform household tasks after school to the detriment of their homework and educational achievement.

5.3 Central Issues in Basic Education

Since independence Botswana has experienced extremely rapid social and economic change. Consequently it has been important to develop an education system which is flexible enough to adjust to changing demands and to provide an education which helps children to be adaptable in a changing world.

At independence less than half of all primary-age school children attended school and the colonial Government was later criticised for grossly neglecting education (Hopkins 1995a). However since independence Botswana has used education as a key strategy for development and expansion has been impressive at primary, secondary and tertiary levels. By 1990 85% of all primary school-aged children were enrolled and by 1993 places were available for all children of primary age. It is estimated that by 1997 at least 90% of children will go through the nine year basic education course (Ministry of Education 1993). Basic education comprises standards 1 to 7 in primary school plus forms 1 and 2 in junior secondary school. The Curriculum Development and Evaluation Unit of the Ministry of Education has undertaken the development of the basic education curriculum which now comprises a core of six subjects: English, Integrated Science, Mathematics,

In 1990 junior secondary schools enrolled 63% of the standard 7 leavers and senior secondary school (forms 3, 4 and 5) admitted 41% of the form 2 completers. However these impressive figures conceal high drop out rates at each level and the Government cannot adequately resource this rapid rate of expansion. A 30% shortage of primary school classrooms was acknowledged in the seventh National Development Plan (NDP 7, 1991-1997). This shortage was confirmed during the field work for this thesis where it resulted in most schools operating a two shift system in order to accommodate the children. More junior secondary schools also need to be built and staffed to provide the full nine years of basic schooling.

5.3.1 Education and unemployment: Expansion in schooling has not led to expansion in employment opportunities. Unemployment is currently about 25% and rising. There is much evidence of the so-called 'Diploma Disease' (Dore 1976), examined in chapter 3, as education and training become increasingly required for entry into the labour market at a time when educational qualifications are rapidly devaluing. Moreover Mansell (1991) found that after completing the nine-year basic education programme and achieving the Junior Certificate of Education many school leavers appeared to be actually disadvantaged because employers were critical of the basic skills and attitudes which they had acquired.

The role which the school can play in addressing the serious problem of unemployment urgently needs to be identified because, for many school leavers, the concept of career choice has now become a non-issue. Choice is no longer available. Many never even get the opportunity to choose whether to work or not because of the shortage of jobs. The failure of schooling to ensure employment is a very recent development (although it has been experienced by most other African countries for the last 15 to 20 years) and Kann et al (1988) found that neither students nor their parents were as yet fully aware of this situation. They still valued education as the key to open the door to jobs rather than as a basic human right or a means of increasing productivity.

In chapter 3 we saw that population growth is an important factor in the relationship between education and employment. The rapid population growth in Botswana has contributed to the difficulty experienced by the education system in maintaining its service and by the economy in providing additional jobs for everyone. Consequently NDP 7 (Botswana Ministry of Finance and Development Planning 1991) advocates the implementation of 'a population policy to improve family planning, health and education and assist in reducing the rate of population growth so that a larger share of future sustainable growth can be reflected in rising per capita incomes' (p.35).

5.3.2 Equity in education: Inequities exist at all levels of the education system. The children of the poor are usually at a disadvantage when entering formal schooling. They have fewer opportunities for preschool education and many children still do not attend primary school or attend irregularly. A study by Kann, Mapolele and Nleya (1989) revealed that these 'missing children' were the so-called 'remote area dwellers' who are mostly Basarwa. The main reasons for children not attending school, and for them dropping out of school, were found to be poverty, distance from schools, bad experiences at school and mental or physical disability. Some were working children (we saw above that boys traditionally herd cattle) and some were age-barred because government regulations do not permit children to start school later than 9 years.

The study by Kann et al (1989 p.83) concluded that the most important barrier to achieving universal primary education in Botswana was lack of political will. The report made a number of recommendations: Small schools (standards 1 to 4) should be provided with one or two teachers for remote settlements; where hostels were essential they should be better supervised and teachers should be sensitised to cultural differences; bursaries were needed for the very poor to cover school fees; literacy teachers needed to learn how to teach young children as well as adults; and special schools should be provided for the disabled (pp.83-86). We will see in Chapter 10 that lack of educational access for Basarwa children is a highly sensitive and political issue and that serious questions need to be raised about the adequacy of the current model of schooling delivered to these children in Government schools in Botswana.

NDP 7 also proposed strategies to reduce inequities within the education system. Efforts should be made to enrol the 'missing children' and reduce drop-out rates; continuing literacy programmes should be provided for adults and as an alternative for out-of-school children; efforts should be made to increase enrolment in junior secondary school; schools should be located fairly around the country; equal quality of education should be ensured in all districts; efforts should be made to increase enrolment in vocational training; the participation rates of boys in primary school and girls in secondary school should be raised; links should be strengthened between educational institutions and local communities; and a system of loans and grants should be introduced to encourage training in areas of national priority. Awareness is growing in Botswana that the next National Development Plan will need to pay attention to other groups of children who are in especially difficult circumstances. In particular there are growing numbers of children living on the streets and children with HIV and AIDS (UNICEF 1991b).

5.3.3 Female Participation in Education: In Botswana female participation in formal primary education is high in comparison with the situation in many developing countries. This is largely because boys have traditionally been involved in herding cattle on the stations and are away from their home villages and the schools for large periods of time. However male enrolment is catching up. By 1989 male and female enrolments were virtually equal and the preponderance of girls in the final year of primary school (standard 7) had declined from 60% in 1979 to 56% in 1989. Girls still outnumber boys in standard 1 of junior secondary school but at senior secondary school (standards 3, 4, 5) the balance shifts towards males. In 1989 three-quarters of all secondary school dropouts were female and a major factor in reducing female participation at this level is teenage pregnancy (Ministry of Finance and Development Planning 1991 p.323). Although four out of five primary school teachers are female there are slightly fewer women than men employed as fully trained secondary school teachers.

Gender inequalities have been explored by Nyati-Ramahobo, Njabili, Mmolai, Selepeng-Tau and Taole (1992) in their analysis of the situation of the girl child in education in Botswana. Part one of this study is a review which draws on published literature to

explore opportunities and disparities in education in four main areas: The National policy on female education, the curriculum and role models in education, the provision of educational facilities, and access to educational opportunities. Part two of this study focuses on educational retention, performance and quality and addresses the situation of children living in difficult circumstances. The study reveals that gender disparities continue to exist with girls being disadvantaged in terms of access, retention, re-entry and quality of education at higher levels. Because the higher levels of education pave the way for economic and social mobility within Botswana society, girls are also disadvantaged after schooling. Similar disparities were also found to exist between girls and boys and between men and women in the areas of health and the law.

The study advocates special measures to bring back to school girls who drop out due to pregnancy and criticises the curriculum for allowing boys to dominate the sciences which provide access to high income jobs. It argues that the curriculum perpetuates the traditional notion that women are only mothers and carers by giving girls access to careers such as teaching young children and nursing the sick and by restricting their access to vocational training. It criticises the curriculum (and the teachers) for failing to nurture high aspirations of what the girl-child can achieve in society. The study also argues that boys are disadvantaged because they frequently drop out of school in the early years when schooling is fundamental in instilling the right attitudes, behaviour and aspirations. The study suggests that missing this schooling might explain why there are so many boys living on the streets in the cities and why there is a boys' prison in Gaborone and not a girls' prison. The next phase of this study provides an in-depth comparison between boys and girls in terms of the provision of education and the school environment.

5.3.4 Improving the quality of basic education: The report of the first National Commission on Education in 1977 (Ministry of Education 1977a) was entitled 'Education for *Kagisano* (harmony)'. It recommended the establishment of a Curriculum Development and Evaluation Department and adoption of child-centred learning. It stressed that improving quality should be given the highest priority. The recommendations of this report formed the basis for the National Policy on Education

(Ministry of Education 1977b) which provided the blue-print for educational development in Botswana for the next 15 years. The report of the second commission on education (Ministry of Education 1993) confirmed that the situation in the classrooms had not improved despite efforts to raise the quality of education. These efforts included reform of teacher training, increased support to teachers in the field, raising the status of teachers and reforming the curriculum to increase its relevance and changing the examination system.

To help reorientate schools towards child-centred rather than teacher-centred learning the Breakthrough to Setswana Programme has been introduced into more than a thousand standard 1 classrooms. This programme aims to teach children to read fluently and to write with confidence during the first year of primary schooling. It was initially developed in England and then adapted for use by teachers, many of them Motswana, working in Botswana classrooms. The Ministry of Education (1990) claims that it was initially successful where teachers were carefully trained and their work was closely monitored but acknowledge that rapid expansion has led to some deterioration in results.

The ideas and methods which inform the Breakthrough Programme are similar to those of Child-to-Child. Both approaches require teachers to work with children in ways that are radically different from traditional didactic practices. Both encourage children to help each other and allow them to talk freely about their work and integrate experience across the curriculum. Having introduced the Breakthrough Programme in Standard I the Ministry of Education has now introduced the project method of teaching throughout the primary school curriculum to reorientate the entire curriculum to child-centred learning.

Much research has been conducted to improve the quality of education in Botswana and there is a considerable body of literature which addresses pedagogy and systemic infrastructural development. The Botswana Educational Research Association (BERA) was formed in 1982 and has been very active in supporting such research and in disseminating the findings through its journal '*Mosenodi*'. Studies have indicated that language is a major problem in the classroom and many of the undesirable instructional

strategies adopted by teachers and students can be viewed as mechanisms for coping with communication problems. Consequently the Botswana Ministry of Education (1990) has recommended that communication in the classroom should be improved by complex ideas being translated into the student's mother tongue to ensure comprehension and by emphasizing more student contributions to the flow of classroom activities.

Research into instructional interactions in the classroom has found that teaching methods are still largely didactic. Teachers focus on 'factual information'. Processes or relationships are not emphasized, reasoning and discovery learning are not encouraged, students rarely ask 'how' or 'why' questions and are treated as, and act as, recipients of knowledge rather than active learners (Ministry of Education 1990 pp.6-9). Discussions with a Chief Education Officer at the Botswana Ministry of Education and with the Head of the UNICEF Mission in Gaborone in 1991 confirmed that a child-centred approach was still derided by most teachers as not being a serious approach to education and that children are not participating in the classroom. More recent research has shown little change in pedagogy (Prophet and Rowell 1993; Hopkins 1995b). The behaviour of teachers in the classroom has been found to be influenced by their social class background and cultural match with students. Teacher behaviour is further influenced by their pre-service and in-service training experiences and the supply of instructional materials. Other factors which influence their behaviour are the pupils' literacy levels and verbal competency, incentives and quality of head teacher leadership. Student interest and attentiveness and teacher enthusiasm have also been identified as key factors in effective classrooms in Botswana.

Notable gaps in the literature indicate that more research is needed to improve educational effectiveness. Little is yet known about the way children learn in Botswana and about the 'cultural collisions' that occur between the expectations of the school and the experiences in the background of the child. More information is needed on the cultural concepts, expectations, language and other skills which students bring to their classrooms and on ways in which classroom experiences can build on the children's own knowledge and attitudinal bases. Understanding needs to be increased about the way in which

teachers in Botswana react and adjust to the introduction of innovative pedagogy. Prophet and Rowell (1993 p.21) have hypothesised that one of the reasons for the relatively poor learning environment to be found in many Botswana schools is that too little is known about how teachers expect and wish to teach and how pupils expect and wish to learn. Prophet also suggests that there is a mismatch between what the teachers believe to be effective teaching and the kind of behaviours that actually take place in the classroom. (Some of these issues are explored in the field study presented in later chapters of this thesis).

5.3.5 The status of health education: Many of the aims set forth by the Ministry of Education (1990) for basic education are broadly related to health. However health is not included as a separate subject within the National Curriculum for basic education but is fragmented within the curriculum. Nor is it part of the teacher education curriculum. Health knowledge is examined in the Primary School Leaving Examination in Science. For example in 1991 this examination included questions about where to go for family planning advice, the causes of malnutrition and diarrhoea, good nutrition and infant feeding, prevention of tetanus and accidents, transmission of HIV and preparation of oral rehydration solution.

At the secondary level Government concern with 'education for life' has been reflected since 1981/82 in the inclusion of Family Life Education as a central component of the science curriculum. The aim is to improve health practices and reduce problems such as teenage pregnancy and HIV and AIDS. Primary standard 7 pupils are taught to describe the human reproductive system and its functions, they are also taught about puberty, pregnancy, child care and spacing. However Family Life Education is neither mandatory at Standard 7 nor is it examined. From 1996 the Family Life Education syllabus for junior secondary school has included the teaching of personal hygiene and child feeding. The effectiveness of these health education inputs urgently needs to be evaluated. The continuing high (and growing) teenage pregnancy rate, while considerably lower among school-going girls than those not in school, would suggest that the sexual health component of Family Life Education is not as effective as it could be.

In 1991 the Head of the UNICEF Mission in Gaborone contended in discussion that children were not being encouraged to participate in the classroom even in subjects such as family life education and AIDS education. This reluctance on the part of teachers to use participatory methods is a serious failure because participating in discussion is essential for increasing children's understanding. Participation is also necessary for developing the life skills which are needed for taking health action such as communication, adaptability, interpersonal skills and problem solving. Consequently it is essential for a child-centred approach to be adopted for health education even if this goal cannot be achieved for other subjects. The reorientation of whole schools to entirely child-centred teaching is unlikely to happen in the short term but there is a strong case to be made for introducing child-centred methods slowly and for starting with health education. This is where the Child-to-Child methodology is important because, as we saw in chapter 4, it can bring active learning into schools 'through the backdoor'. In Botswana activity-based methods are already being used in some schools where the Child-to-Child Little Teacher Programme is implemented. This programme is run at no cost to the Government relying as it does on the voluntary services of the school teachers and support from the CHILD-to-child Foundation of Botswana. This programme is studied in Chapter 6.

5.4 Preschool education.

In contrast to the expansion of formal schooling there have been few advances in the area of preschool education despite growing political pressures on the Government for them to extend services to this age group (UNICEF 1989). Preschool education is not included in the Education Statistics handbooks and no figures disaggregated by gender are available. Although preschool education is not yet provided within the formal education sector the Government has a programme to train 30 teachers per year at the Lobatse Day-Care Training Centre near Gaborone. Since 1979 this programme has been largely funded by UNICEF. As mentioned above the Government has also collaborated with the CHILD-to-Child Foundation of Botswana to facilitate implementation of the Little Teacher Programme which involves both primary and preschool children.

5.4.1 The Botswana Day-Care Programme: This started in 1966 with a number of day-care centres operated by voluntary organizations such as churches, the Red Cross, women's groups and private individuals. These centres were run without clear policy guidelines or clearly stated objectives until 1977 when a Steering Committee for Day-Care was established with members from the Ministries of Education, Health, Local Government and Lands, NGOs and religious groups. This committee formulated the National Policy on Day-Care Centres (Ministry of Local Government and Lands 1980) which recommended that Councils strive to set up Day-Care Centres to take care of young children who were being 'left with siblings, (or) locked in their own homes during the day while their mothers are at work' (p.1). The National Policy gives the Ministry of Local Government and Lands authority to coordinate, support, monitor and evaluate day-care centres without transferring ownership of the centres to the government. The guidelines cover the construction and staffing of Day Centres, the feeding of children in the centres and the training of teachers, which was started in 1981 at the Training Centre in Lobatse. In 1985 a second committee was formed which reviewed the existing policy and curriculum.

One of the anomalies within the Government structure is that the day-care programme comes under the Department of Social Welfare in the Ministry of Local Government and Lands and not under the Ministry of Education. In 1989 an evaluation of the Day-Care Programme (Otaala, Njenga and Monau 1989) was prepared for the Government of Botswana and UNICEF to mark ten years of UNICEF support to this programme. This evaluation identified day-care services as 'the best child-rearing alternatives' (p.52) but recommended that 'strong links should be built between day-care centre programmes and primary school programmes in order to ensure continuity' (p.54). It also stressed that the home-base for preschool education needed to be changed:

It is clearly evident that the most appropriate home-base for day-care centre programmes is the Ministry of Education ... (which has) professional expertise to ensure proper and most effective co-ordination, management and supervision of day-care programmes and (can) ensure the necessary linkage and continuity between day-care centre programmes and primary school programmes (p.49).

No action has been taken on this recommendation although the Ministry of Education

accepts that it should take responsibility. The Ministry argues that its own priority is to universalise primary education and to improve educational quality and that it does not have the human resource capacity to assume responsibility for preschool education (UNICEF/MLGJ 1990 p.11)

Most importantly the evaluation revealed that parents, community leaders and government officials involved in day-care centres were dissatisfied with the programme. Reasons cited for dissatisfaction included the low level of parental and community involvement, low output of the Lobatse Training Centre (less than 300 teachers since 1981) and low access (only 3% of Botswana's preschool age children were enrolled). Teachers were considered to lack motivation, initiative and understanding of the training, philosophy and objectives of the programme. The Montessori approach was viewed as irrelevant. This was the only method taught although it had not been adapted to the Botswana context and was not effectively implemented. The day-care centres were found to be almost bare because teachers trained at the centre relied on using the Montessori kit which was rarely available. As a result teachers resorted to didactic teaching, emphasising reading and writing regardless of the age and readiness level of the children. The language for communication for preschool education was found to be a problem and a policy needed to be formulated to guide teachers. Moreover a serious omission in the curriculum was the teaching of language to the preschoolers.

As a result of these findings the Government and UNICEF hosted a Symposium on the Care and Education of the Young Child (UNICEF/MLGL 1990) to provide guidance on how best to improve the day-care programme and to make it accessible to more children. It was agreed that as Montessori was only one of several influential figures in the field of early childhood education (as we saw in chapter 2 pp.26-27) a variety of approaches could be used. The symposium drew on the findings of the evaluation by Otaala et al (1989) and recommended that a National Commission for Children be formed to review existing childhood care and development services and that efforts should be made to improve existing services provided by private and voluntary organizations. (This recommendation was later reiterated in NDP 7.) It was recommended that the Ministry of Education

should be more active and establish a National Institute for Early Childhood Care and Education within the University of Botswana for training, research and curriculum development including the development and dissemination of low-cost learning materials. (This recommendation was not taken up and does not appear in NDP 7.)

The symposium also recommended a range of strategies for improving the care and development of children under six years old, especially those coming from poor families who are most vulnerable to stressful conditions. Some of these recommendations have since been implemented. In 1992 President Masire signed and ratified the United Nations Convention on the Rights of the Child on behalf of the Botswana Government. As we saw in chapter 4 (p.85) this Convention affirms that all children, without any exception, possess the rights to enjoy special care, protection, opportunities and facilities needed to enable them to develop physically, mentally, morally, spiritually and socially in a healthy and normal manner. Countries which are a party to the Convention have undertaken to prepare a National Plan of Action for Children to the Year 2000. In Botswana this plan has been coordinated by the Ministry of Finance and Development Planning.

By 1991 the Day-Care Programme had been renamed Preschool Education and NDP 7 claimed that demand for preschool education had increased. This increase was considered to be the result of a rising population of 2½ to 6 year olds and a growing awareness of parents of the social and educational benefits of preschool education. Demand also reflected the increased participation of women in the labour market, a growing number of one parent families headed by working mothers and the increased involvement of rural women in income generation. The main problems experienced by day-care centres were identified as low teacher salaries, high fees for parents and lack of food for the children. NDP 7 (p.391) stated that efforts would be made to improve existing services. Local Authorities, communities and non-governmental organizations would be encouraged to participate in developing early childhood education. Training would also be considered for managers of day-care centres, parents, families, care givers and volunteer workers.

In 1992 the Botswana National Conference on Education for All (Ministry of Education

1992b) put further pressure on the Government to provide compulsory preschool education for 5 year olds. This Conference recommended that a preschool Unit should be established within the Ministry of Education to draw up a standard programme for all preschools both government and private. At the time of the author's visit to the Ministry of Local Government and Lands in 1992 no action had yet been taken on the recommendations of this Conference and the coordinating committee for preschool education had not met for more than a year. A Senior Administrative Officer with responsibility for preschool argued that no action was possible because her unit was understaffed and an additional staff member would be needed for progress to be made on preschool programmes. She considered that supervision of the day-centres by the Department of Welfare was inadequate because many of the social workers responsible for this work had not been trained in early childhood care and education.

Another issue of concern addressed in the literature is the varying quality of facilities provided in day-care centres. The quality of the facilities has been found to depend on the ownership of the centres (Nyati-Ramahobo et al 1992 p.50). Centres which are privately owned and patronized by expatriates, elites and the wealthy are of high standard whereas some of those which are privately owned and patronized by middle income groups are of poor quality. Other centres owned by churches, NGOs and Village Development Committees vary widely in the quality of preschool provision.

Field visits to a range of day-care centres in Gaborone in 1992 confirmed the fee levels and patronage reported by Nyati-Ramahobo et al (1992). In each centre children were provided with the three nutritious meals each day required by the Government guidelines and most were adequately staffed and had toys for children to play with. The privately owned centres charged very high fees of between 100 pula and 300 pula (equivalent to 22-66 pounds sterling) per month. In contrast the centres run by NGOs only charged from 5 to 10 pula per month.

Only one centre visited said they had a curriculum for the preschool although it was not available. This centre had a well-established programme run by the YWCA which clearly

aimed to stimulate early learning and prepare children for entry into primary school. Moreover this programme was part of an integrated whole family approach and was complemented by a range of other programmes. Another programme visited, run by the Botswana Council of Women, specifically aimed to provide a service to the poorer and more vulnerable groups in Gaborone. Both of these NGO programmes complained of lack of adequate funding which they said led to low staff salaries, low staff morale and high staff turnover. It was not possible to visit any day-care centres in the rural areas. These are rare and are mostly run by village development committees. Fees are very low and the cost of teachers salaries and food for the children frequently cannot be met without external funding.

5.4.2 The Day-Care Programme and the Little Teacher Programme: We saw earlier in this chapter (p.111) that the Botswana Government acknowledges the need for preschool education. It encourages the development of day-care centres and the Little Teacher Programme but refuses to accept any financial responsibility for them. Although both of these programmes provide preschool education they do not appear to be in competition with each other. Each caters for a different clientele with higher income families preferring day-care centres which provide more hours of child-care and lower income families preferring the Little Teacher Programme because it is free. However the need for greater collaboration between the programmes to agree the location for new centres so that they take account of differences in client group was noted by Somerset (1987 p.95).

There is also a need to establish closer links between these programmes and other institutions working in the field of early childhood education especially the Ministry of Local Government and Lands, the Ministry of Education and UNICEF. It is surprising that the Ministry of Education has allowed the CHILD-to-child Foundation of Botswana to implement its own curriculum in primary schools and involve school teachers since 1979 without establishing closer links and becoming more involved with it.

5.5 Summary

This chapter has presented a country profile of Botswana and an analysis of primary education. Despite rapid economic growth over half of all households in Botswana are living in poverty with ill-health predominantly caused by poor socioeconomic conditions and the low status of women. It has been argued that the traditional pattern of early childhood socialization demonstrates how Child-to-Child is at home within the culture. However, in recent times the support provided by the traditional extended family has weakened and created a growing demand for preschool education and young child care.

Educational services based on a western model have been rapidly expanded and most children now follow a nine year basic education programme. Educational quality is poor. Efforts by the Ministry of Education to implement child-centred pedagogy have not yet been successful and teaching methods are still largely didactic. Health education occupies low status within the curriculum and there is a strong case for introducing child-centred approaches into schools slowly and for starting with health education. Preschool education has been neglected and is not yet provided within the formal education sector. However the Government does have a programme to train teachers for preschool day-care centres and it has facilitated implementation of the Little Teacher Programme which involves both primary and preschool children. This programme is studied in chapter 6. Educational opportunities have expanded rapidly since independence and the Government is now having difficulty resourcing current provision and reducing inequalities.

Chapter 6 CHILD-TO-CHILD IN BOTSWANA

This chapter examines the way in which Child-to-Child has been understood and implemented within Botswana. Drawing on the analysis of Child-to-Child in chapter 4 it attempts to provide a comparison of theory with practice. It also offers further background to the field study reported in subsequent chapters of this thesis, the study in which the Child-to-Child Little Teacher Programme is used as a vehicle for intervention.

6.1 The acceptability of Child-to-Child in Botswana

In chapter 5 we saw that the notion of older children helping younger children is part of the traditional pattern of early childhood socialization in Botswana and we argued that this demonstrated how Child-to-Child is at home within the culture (p.99). This is not the whole story. Although the notion of children helping children appears to be highly acceptable the notion of children passing on ideas to their parents is more problematic conflicting as it does with cultural norms, family characteristics and the child's position and status within the family. In Botswana children promoting health to their elders goes against the tradition of wisdom being passed down from the older to the younger within a strongly hierarchical social structure. Similarly the notion of partnership with children (as envisaged in chapter 4 p.86) is also problematic in view of the low position children occupy in the Botswana social hierarchy.

However Botswana society is undergoing rapid change which may facilitate Child-to-Child. Bonati (1992) contends that in some situations where the child is the first person in a family to go to school they may be listened to with great respect. She acknowledges, however, that where children are traditionally expected to remain silent it is unacceptable for them to be appearing to educate their elders. In such circumstances schooling may cause alienation and increase the child's difficulties in being heard within the family.

Child-to-Child is currently promoting the notion of children as researchers. There is no evidence in the literature from which to assess the acceptability of this notion within the Botswana context. However a study conducted in Kenya by Nimpuno (1986) in which schoolchildren asked their grandparents about taboos, rules, beliefs and practices in the field of sanitation found that children had certain advantages as researchers. A relationship of trust and intimacy already existed between the children and their grandparents and consequently there was no need to overcome the suspicion and fear which so often distorts the exchange of information between project staff and participants. Nimpuno concluded that 'children are quite reliable sources of information, provided they are guided and motivated properly' (p.76).

6.1.2 Acceptance of Child-to-Child ideas in Botswana: In Botswana there is much misunderstanding about the character of Child-to-Child. It is widely regarded as being synonymous with the Little Teacher Programme. This is an unfortunate confusion and there is a pressing need for the Child-to-Child approach to be distinguished from the Little Teacher Programme so that its potential can be realized more fully. Within the Ministry of Education Curriculum Development Unit, the University of Botswana, and UNICEF Gaborone there are people who have a special interest in Child-to-Child, who have a good understanding of how it is currently understood and of the potential of its approach, and who would understand the need to make this vital distinction between what is an approach to health education and what is a specific programme.

Attempts to bring the conceptualization of Child-to-Child in Botswana up to date include a workshop held in Gaborone in 1992 in which the researcher participated. The aim was to explore the nature and potential of Child-to-Child. What emerged from this workshop was recognition that a number of initiatives, quite separate from the Little Teacher Programme, were informed by Child-to-Child ideas. Such initiatives included health clubs in primary schools encouraged by the Ministry of Health, initiatives involving youth organized by the Ministry of Education, the involvement of children in community mobilization for Universal Child Immunization organized by UNICEF, and a peer group counselling program known as PET in secondary schools organized by the YWCA.

6.2 The Child-to-Child Little Teacher Programme

There is a small body of published literature on the Little Teacher Programme in Botswana. Two notable contributions are a survey conducted for the Child-to-Child Trust by Somerset (1987 pp.78-98) and a more recent evaluation for UNICEF in Gaborone conducted by Babugura, Monau and Butale (1993). These documents provide background on the history and development of the approach, identify strengths and weaknesses of the programme, and make recommendations for improvement. There are also unpublished papers written by the Coordinator of the CHILD-to-child Foundation of Botswana for seminars, conferences and meetings. The following quotations are typical of the unsubstantiated claims commonly made in these papers:

The CHILD-to-child Foundation of Botswana is seen worldwide as the only way of improving pre-school education in Botswana (1991 p.1).

Studies have shown that CHILD-to-child children tend to score 20% better than non-CHILD-to-Child children (1992 p.1).

6.2.1 History and development of the programme: The Little Teacher Programme in Botswana is acknowledged to be unique in the region in some respects. It was started in 1979 as an outreach programme in two pilot schools to make a practical contribution to the International Year of the Child. The Programme was designed to teach and encourage schoolchildren to concern themselves with the health, welfare and development of their younger brothers and sisters and of other young children in the community. We saw in chapter 4 (p.68) that this was the conceptualization of Child-to-Child at that time.

In Botswana school teachers responsible for implementing the Programme taught the primary school children who, it was hoped, would then carry the messages to younger children at home or in the community who had not yet started school. The younger children, however young, were simply called 'students'. This scheme was rapidly modified. By 1981 preschool children were attending school regularly and taking part in activities with primary school children which were supervised by the school teachers who were known as Child-to-Child teachers. This was the most important change to have been

made to the original scheme. Somerset (1987 p.78) notes that the use of the terms 'little teacher' for the primary school children and 'preschooler' for the preschool children is a more recent innovation. In this thesis the term child educator is used to denote the role which the little teacher performs.

In chapter 4 we saw that the Child-to-Child concept has continued to broaden and deepen throughout the 1980s and 1990s. This evolution has not been reflected in practice in Botswana where the concept has remained almost entirely as it was originally formulated. Consequently it is still narrowly focused on what older children can do to help younger ones and it still uses upper case letters for the first 'CHILD' to represent the BIG CHILD and lower case for the second 'child' to represent the small child. The failure of the Child-to-Child concept to grow and evolve in Botswana is largely because its ideas have been taken up and 'owned' from the start by the CHILD-to-child Foundation of Botswana. This non-governmental organization (NGO) has been unable to respond to innovation and change. We shall see later in this chapter how this 'ownership' has resulted in the Little Teacher Programme becoming 'fatigued'.

The aims and objectives of the Little Teacher Programme are shown in figure 6.1. They are similar to those of the *Tirelo Setshaba* programme which is offered to secondary school leavers in Botswana. After completing their school certificate *Tirelo Setshaba* participants spend one year working in community development projects, often as teaching aids and health assistants. Child-to-Child and *Tirelo Setshaba* both aim to provide young people with opportunities for responsibility. Through being trusted and knowing that much is expected of them it is hoped that such young people will develop established and lasting attitudes of responsibility and take action accordingly.

By 1992 the number of schools participating in the Programme numbered 48 (mostly in rural areas). Since the programme started it is estimated that about 700 primary school teachers and 50,000 children (both preschoolers and child educators) have been involved in it.

Figure 6.1 Aims and Objectives of the Little Teacher Programme in Botswana

Aims
1. To enable children to be aware of their potential and to promote that potential.
2. To enable older children to help the younger ones so that the younger children would benefit from the teaching and guidance of the older ones.
3. To encourage children of school age to concern themselves with the health, welfare and general development of their younger preschool sisters and brothers and of the younger children in their community.
4. To reinforce learning of older children by involving them in the teaching of the younger ones and to help them understand this responsibility and explain how he or she can contribute easily but constructively to shaping the future life of the little children, of the family and the community.
Objectives
1. To introduce lessons and materials to primary school teachers who volunteer to transmit the concept to the lower primary children who in turn teach their preschool partners.
2. To involve parents and community groups in the programme to the greatest possible extent through workshops, rallies, open houses and other means.
3. To formulate and carry out ongoing evaluation plans.
4. To hold annual workshops for teachers from the various project areas to assess progress from past years and to determine goals for the next year.
5. To revise and update lesson plans and materials as it becomes necessary.

6.2.2 The content of the Programme: The core materials currently used by the Child-to-Child teachers in instructing the little teachers are two booklets developed by the American Wives Association in 1979. These have not been modified in the light of experience. These booklets contain sixteen detailed lesson plans to be covered in eight weeks. Topics focus on 'child readiness' for primary schooling (shape, colour, form, number) as well as safety, personal hygiene, nutrition, first aid and the village environment. Figure 6.2 shows that the lesson plans follow a traditional format which is fairly prescriptive. The methods suggested combine receptive learning with activity-based approaches using song, dance and role play. The plans are still oriented towards the original outreach approach in which child educators went back to their own neighbourhood to teach their 'students'. Paradoxically adult teachers are given more guidance on methodology than the children who are supposed to be left free to develop their own methods. Very little guidance is given to the children about **how** - as opposed to **what** - they might teach. Most importantly the step-by-step methodology, which as we saw in chapter 4 is now regarded as a central and non-negotiable feature of the Child-to-Child approach, is not incorporated within the core materials of the lesson plans.

Figure 6.2 Example of a lesson plan used in the Little Teacher Programme

Purpose - Discuss the importance of nutrition using the three major food groups as reference.

Objectives - The child will be able to name the three major food groups and correctly place a picture of a given food into one of three groups.

Materials 1. Big and little worksheet. 2. Pencils and crayons. 3. Paper plates 4. Paste 5. Food Pictures or tinned food labels - stored in 3 boxes according to food group. 6. Nutrition chart.

Time 45 mns.

Step 1 Child-to-Child Feedback. Teacher asks children to tell how their students did with their last lesson. Allow time - for several to response.

Step 2. Circle Discussion

Teacher: This week we will be talking about food and those foods which are best for us to eat. Too little food or food which is not clean can make us very sick, so what we eat is very important. Eating proper foods does three things for us. Can anyone tell me what things food does for us?

Children: Allow children a chance to answer.

Teacher: Make sure the children have mentioned and understand the three things food does, i.e. 1. Helps us grow. 2. Gives us energy. 3. Protects us from illness.

Teacher then asks children to 'act out' the three things food does for us in this or a similar way.

1. Helps us grow - have children stand up slowly from a sitting position with arms stretched over head.

2. Gives us energy - have children run or 'jog' in place.

3. Protects us from illness - have children make great big smiles and tap on their chests.

You might want them to fill in the missing word.

Example: Grow tall like a _____. Strong like a _____. Healthy as a _____.

Teacher stresses that without good food, we don't grow tall, we feel tired (no energy) and we get sick often.

Step 3. Paper Plate Preparation

Hand out plates, one per child. Show them how to divide the plate into three sections and have them each divide their plate accordingly. Each section is then to be labelled for one of the three food groups. You can have them do it however you feel it is easiest and best.

Suggestions: Letter symbols in each section. G = growth food E = Energy food P = Protection food or Picture symbols Growth Energy Protection

Step 4. Worksheet - Big and Little

Hand out worksheet and have children complete it. Give children an extra sheet to take to their student. Give them instructions about how their student may complete it.

Step 5. For Child to Child Teaching

1. Big and Little Worksheet

2. Ask the children to teach their students about the three things food does for your body. Have them teach their students how to 'act out' these things.

Classroom observation and discussion with teachers and parents suggested that the development of basic skills in number, colour, shape, pre-reading and pre-writing is now given more emphasis within the curriculum for the Little Teacher Programme than in the original scheme. Teachers and parents were agreed that the priority was for the little teachers to help preschoolers get ready for school. These findings support those of Somerset (1987) and Babugura et al (1993) who contend that the programme has placed more emphasis on preschool preparedness and less on health education over the years as teachers and parents have become more aware that preschool education can be a means of getting a head start on standard 1 work.

Despite the emphasis on preschool preparedness, responses to a postal questionnaire sent to head teachers of all schools involved in the Little Teacher Programme did suggest that some health messages were taught in Little Teacher sessions. Only twelve schools (out of forty-eight) responded to the questionnaire but all these reported that child educators were being taught messages on personal hygiene, nutrition and road safety. Six schools also reported that the Little Teacher curriculum included child growth and development, ten schools reported teaching about disability and seven schools taught safe life-styles. Schools reported using a variety of teaching methods in the programme which included playing, singing, drawing, counting, dance, drama and role play, health talks, film shows and radio broadcasts.

Observation, discussion with teachers and responses to questionnaires confirmed that in most schools children were involved in a variety of health-related activities around the school including, cleaning the standpipes and toilets, cleaning the classrooms, polishing shoes and picking up rubbish. Such jobs need to be done but if it is in the name of Child-to-Child that children rather than adults are doing them then something has gone badly wrong. We saw in chapter 4 (p.90) that Child-to-Child can be misunderstood and that, far from leading to child-power it can lead to child exploitation, particularly where, in Child-to Child programmes, children are regularly required to perform tasks which adults do not wish to do. The researcher noted how during school visits children were heavily involved in providing services for teachers such as running errands to the shops and

preparing and serving refreshments for teachers during the morning lesson break.

6.2.3 Selection of Child-to-Child schools and teachers: Every year the Coordinator of the CHILD-to-child Foundation of Botswana together with a representative of the Ministry of Education selects one school which is considered to be most in need of the programme from each of the four districts in which the Little Teacher Programme is operating. The Coordinator then writes to the head teacher of the school through the District Education Officer to invite that school to participate. She follows up this letter with a visit to explain to the head teacher what the programme involves and what it offers to the children.

If the head teacher is interested there is a meeting with all the school teachers. If the teachers are interested there is a meeting with representatives from the parent-teacher association (PTA), the village development committee and any NGOs working in that area in community development. The final commitment to participate in the programme is made at a meeting at the chief's *kgotla*. Support for the Programme is thereby gained at the outset through the a process of wide consultation (called '*therisanyo*' in Setswana) which is traditional in Batswana society and regarded as the basis of democracy. The head teacher asks for volunteers amongst her staff to run the programme or, depending on the style of leadership, she may simply allocate the task to one or two members of staff. These Child-to-Child teachers then attend an introductory workshop to learn about the programme and how to run it. When all the meetings and training have been completed the programme is officially launched in the presence of pupils, teachers, parents and important members of the community. The CHILD-to-child Foundation agrees to provide the lesson plans, paper, crayons and paints; to arrange visits by the Coordinator at least four times a year to provide support for the teachers and to monitor the programme, and to hold annual workshops where teachers can share experiences and learn more about the programme.

In practice these agreements have not always been kept. A head teacher reported that, although the Programme had been launched in his school, it had never started because the

school had not received the curriculum materials. Head teachers of two other schools reported that they had not received support visits from the Programme Coordinator and that consequently the programme had become inactive. The Programme Coordinator agreed that many schools lost interest when financial constraints prevented her from supplying the crayons, pens, pencils and papers needed for the programme. Although learning materials and support visits have not been always forthcoming the CHILD-to-child Foundation has achieved some success in organising annual workshops. Teachers reported that these workshops had regularly been held. Donors have been very willing to support seminars and workshops both in Botswana and overseas. However there is now some concern over the disproportionate amount of time which many professionals, including teachers, spend away from their workplace as a result of these meetings.

Seven Child-to-Child teachers from different schools were interviewed individually about what had motivated them to volunteer for the Little Teacher Programme. One teacher, the wife of the village chief, argued forcefully that older teachers such as herself volunteered for patriotic reasons and complained that they were often derided by younger teachers for doing so:

We want to develop our country, to assist our government to develop our people and to develop ourselves as teachers. Young teachers don't feel the same because they want large sums of money and don't want self-reliance. They always say you are wasting your time for nothing, you don't earn anything. The main thing we want to do is to develop our people because the standard of education in our country is still behind.

However a younger teacher also said she had volunteered for the Programme because she 'wanted to develop the children in Botswana'. She stated that some teachers 'say their time has been wasted because they are not paid for Child-to-Child' but stressed that she was 'not really after money'. She wanted her child educators 'to be like myself tomorrow so they should teach others too'. In contrast one teacher said that the work was 'heavy' and felt that it would be helpful if she was given something for doing it.

One teacher stated that she had volunteered because she felt it was important to help the preschoolers prepare for entry into standard 1: 'so they will know how to talk with the

teacher, how to do things for themselves, learn how to look after themselves, learn how to clean themselves, don't cry and will play with others'. The comments of three other teachers endorsed this view. One of these teachers felt the programme was useful to her because she was in charge of standard 1 and found that children settled down better when they had been preschoolers. The Programme Coordinator from the CHILD-to-child Foundation felt that teachers volunteered because the programme helped preschool children get good results and thereby improved the reputation of the teacher.

Three teachers were motivated because they felt that child educators were very interested in the programme, that the children liked teaching very much and that teaching made them feel clever and happy. Two teachers said they were involved because the programme benefitted the child educators when they were able to take the messages home. It improved their communication skills and they gained self-esteem from their status as teachers. They felt it was useful to all the children because they learned messages and enjoyed drawing and writing. One teacher felt that the Programme provided support for preschoolers who may be neglected at home: 'I think it is very important to do this activity because pupils sometimes need love, not only from parents but from everyone. Pupils who may be neglected at home will know someone loves them'.

6.2.4 Recruitment of children: In Botswana the school year begins in January and preschoolers may enroll on the Little Teacher Programme at any time during the previous school year. In the urban school in Gaborone which was involved in the field study the community is fairly settled and earns its living through formal or informal employment rather than through agriculture and cattle keeping. Consequently the programme can start in January with a full complement of preschoolers. In rural schools, most especially in the north of Botswana, the pattern of recruitment reflects the seasonal migration discussed in chapter 5 (p.99). Recruitment is low in January because mothers take their small children with them when they migrate to cultivate the lands. Enrollment increases dramatically in September after the harvest has been collected and they return to live in the home village.

Responses from the postal questionnaire recorded an age range for preschoolers of 4-7 years which suggested that some children spend more than one year as preschoolers before entering standard 1 at the age of 6 years. This was confirmed in two of the schools visited where some of preschoolers were found to be in their second year of enrollment onto the programme. In all schools surveyed the numbers of boys and girls enrolled as preschoolers were roughly equal.

Responses from the questionnaire also showed that the age range of child educators was 7-9yrs. indicating that most children would be in standards 2 and 3. This is in line with the recommendation of the CHILD-to-child Foundation of Botswana, although it is acknowledged that children may be ready to be little teachers towards the end of their year in standard 1. Many schools also recruit from standard 4. One of the principles of Child-to-Child is that programmes which use its ideas should be open to all children who want to participate in them. Although recruitment onto the programme is confined to the lower standards, within these standards children are usually self-selected but there are exceptions. In one school visited the teachers reported that when a new preschooler enrolled they chose the brightest child educator in their class and coopted him or her onto the programme.

In most schools the school teachers pair the child educators and preschoolers together, boy to boy and girl to girl. A few schools allow free choice. Where there are unequal numbers of child educators and preschoolers, children may work in groups of three.

6.2.5 Little Teacher Sessions: The following account is based on observation, responses to the postal questionnaire, and material collected through individual interviews with the school teachers involved in the field study.

Preschoolers typically come to school twice each week to take part in the Little Teacher Programme and each session lasts about an hour. However the number of sessions per week in the schools visited ranged from one to three. Teachers at the school where there was only one session per week complained that they did not have sufficient materials

(paper, pencils, crayons, worksheets) to cope with more. In all schools where preschoolers were present during the school lunch break they were able to benefit from a cooked lunch. This meal is provided free in all Botswana schools and usually comprises a nutritious mix of pulses, cereals and vegetables. For children from poor families this meal could be an important source of nutrients to promote both their health and ability to learn.

Observation in schools revealed that there is no typical procedure for conducting Little Teacher sessions. Teachers are implementing the programme in a variety of ways. In the urban school in Gaborone which was involved in the field experiment (described in chapter 7) parents usually brought their preschoolers to school before lessons started on Tuesdays and Thursdays. Parents collected their children at about 4pm. These young children hung around the school unsupervised except for the one-hour Child-to-Child session at the end of the morning lessons. Child educators were self-selected but the programme was only open to children in the Child-to-Child teacher's own class which happened to be standard four that year. The Little Teacher session observed by the researcher ran from 11.30am. to 12.30pm. and children not enrolled on the programme were allowed to leave early before the session started. The classroom was arranged for small group work, with children sitting on chairs in groups around low tables. Preschoolers were not allocated their own child educator because the attendance of the preschoolers was very irregular but they could choose the same child educator each time if they wanted to. In this school boys usually chose to pair with boys and girls with girls but children were free to choose and some mixed gender pairing resulted.

The Child-to-Child teacher started the class by explaining to the child educators that the lesson for today was on learning to write. She demonstrated some pre-writing exercises on the chalk board and taught them a game which involved jumping along the floor like a frog. (The jumping resembled the writing pattern they had been shown.) She then invited the preschoolers to come in and sit on the floor around the chalkboard and she taught everyone to clap a rhythm. She then asked for a child educator to volunteer to come to the front and conduct the class. A very confident and articulate child

volunteered. He adopted all the mannerisms of a traditional didactic teacher and proceeded to instruct the preschoolers about the pre-writing pattern which he drew on the chalk board for them to see. He then invited a preschooler to join him and instructed the preschooler to trace over the pre-writing pattern on the board. (See photo-record in appendix 3 p.A7.)

The adult teacher then gave a sheet of plain paper to each preschooler and asked them to join up with a child educator. Each preschooler sat in a chair and practised the pre-writing exercise while their child educator stood behind providing help and encouragement. The child educator wrote the preschooler's name on the back of their paper so they could take it home after the lesson. The child educator then taught the frog game to their preschooler. When this task had been completed the preschooler, accompanied by his or her child educator, was allowed to move to one of the tables where paints, crayons and paper had been laid out for them to draw a picture of themselves and their family (see photo-record in appendix 3 p.A8). The lesson finished with some songs.

The Child-to-Child teacher was asked whether the children took any of the messages home to their parents and she replied that she did not know because the school had not been able to engage the parents in this or any other school activity. She was concerned that she had never met most of the children's parents. She contended that this was because those who were in employment could not take time off work to attend school functions and that many of those who were unemployed had problems of alcohol abuse and were largely apathetic towards the education of their children.

A different style of implementation was observed in a rural school involved in the field study. In this school six teachers had volunteered to run the Little Teacher Programme and had been doing so for more than a decade. These teachers worked together in pairs to run a session although all teachers were present at each session. Little Teacher sessions took place three times a week in the middle of the afternoon after classes had finished for the day. At the beginning of the session the teachers gathered under a large tree in the dusty school compound together with child educators and preschoolers. The session

started with singing and an energetic game which involved everyone standing in a large circle whilst children ran races around the circumference. After this the preschoolers were released to play on their own for a short while.

One of the school teachers then stood in front of the group of child educators who were seated on the ground and talked to them for about 15 minutes. These children were then sent to find their preschool 'twins' and take them to join one of the school teachers. (They were free to choose which teacher they wanted to be with.) In this way each of the six school teachers was responsible for about half a dozen child educators and their preschool 'twins'. Each child educator then spent 15 minutes passing the message to their preschooler. When they thought the message had been learned they took the preschooler to the school teacher who checked the preschooler could repeat the message.

The whole group then came back together and the process was repeated from the beginning. The other teacher responsible for the session gave her presentation and the children then divided into the six smaller groups each group supervised by a school teacher. The session finished with more singing and another group game. When asked whether the children took the messages taught in these sessions home the school teachers were all agreed that they did. They contended that this success was due to the community being fully engaged with the programme, with parents frequently coming to the school to talk about what their children had been doing in the programme. Their views were supported by the observation during field visits that parents were always present and helping in this school. In discussion with the researcher parents were very positive about child educators helping preschoolers to learn but there was no mention of its value to the older children.

Another style of implementation observed was where the school teacher co-opted all the children in her class as child educators and taught them the Child-to-Child messages during morning lesson time. When the preschoolers arrived at lunch time messages were passed verbally from child educators to preschoolers. Most, but not all, of the teaching observed during the Little Teacher sessions was didactic in that teachers only involved

children in order to check their recall of factual knowledge. In one school the walls of the classroom were decorated with worksheets on number, shape and colour which had been supplied by the CHILD-to-child Foundation of Botswana and completed by preschoolers. In this class the children had been taught a song written by the teacher which they sang whilst dancing around in pairs, preschooler with child educator.

6.2.6 Programme Management: The Programme was originally managed by the American Women's Association (AWA). According to Barnabas Otaala (1994) the idea of Child-to-Child was first introduced to this group in mid 1978 by Nancy John Peilemier after she had attended a conference in Lesotho and heard Dr. David Morley talk about Child-to-Child. We saw in chapter 4 how Morley, one of the charismatic founding members of Child-to-Child, inspired the spread of Child-to-Child by his 'evangelistic' enthusiasm to propagate its message.

Members of the AWA association worked on a voluntary and part-time basis until in 1980 a Non-Governmental Organization, the CHILD-to-child Foundation of Botswana was set up to manage the Programme. Its constitution was drafted by the American Consul whose wife, Mrs. Lula Dawson, had become interested in the Child-to-Child approach. The Board of the CHILD-to-child Foundation of Botswana still includes representatives of the American Wives Association, together with representatives of the Ministry of Education, the Ministry of Local Government and Lands, and multilateral and bilateral development agencies. The Foundation President is Lady Ruth Khama (wife of the late President of Botswana). Mrs. Gladys Masire, the First Lady, is the Honorary President.

To manage the programme on a day-to-day basis a Motswana was appointed in 1980 as Programme Coordinator and she has remained in this post since that time. During the late 1980s an English woman working for Voluntary Service Overseas was appointed for three years to help coordinate the Little Teacher Programme and together with a Motswana secretary they moved into the offices they now occupy. In the compound there is a portakabin which has been donated to the Foundation and this is intended to accommodate an overseas project worker when the Foundation is next able to attract one.

6.3 Problems and concerns

In interview the Programme Coordinator acknowledged that when the programme first started some of the parents were critical of their children being used to teach younger children and felt it was wasting their time. However she contended that nowadays parents were supportive: 'I never have any problems. Immediately after the school is selected I approach the people and I'm always welcomed'. She was not able to identify any criticisms of the Programme. Despite this expression of confidence and satisfaction there are quite clearly concerns which need to be addressed. To a greater or lesser measure all of the criticisms of Child-to-Child identified in chapter 4 (pp.89-93) can be applied to the Little Teacher Programme in Botswana.

6.3.1 Lack of rigorous evaluation data: Evidence for the effectiveness of the Little Teacher Programme is weak. There is no empirical evidence that preschoolers learn messages from child educators or that child educators benefit from performing their role. Despite this lack of evidence the Programme Coordinator frequently presents papers to meetings and seminars which claim that the programme has been shown to be effective. In interview the Coordinator stated that 'children involved in the Little Teacher Programme do better in their exams than children who have not been in the Programme'. To support these claims average attainment scores for child educators (in maths, English and Setswana) are compared with so-called 'regular student averages'. The average scores of the child educators are higher than the regular student averages (Masolotane 1991). Unfortunately interpretation of these scores is not straightforward. The performance differences could be entirely due to selection factors or to any or all of many other variables which also impact on attainment.

In 1993 UNICEF commissioned the Botswana Educational Research Foundation (BERA) to conduct an evaluation of the Little Teacher Programme. BERA appointed three evaluators, two researchers from the University of Botswana and one officer from the Ministry of Education. This evaluation assessed the extent to which the stated programme objectives had been met, even though these objectives were weak and in need of revision.

The evaluation report (Babugura, Monau and Butale 1993) argued that poor record keeping in schools made evaluations from that source difficult. Nevertheless they reported that teachers were 'emphatic' that the programme made a positive difference in preparing children for primary schooling. It was claimed that children who had been child educators appeared to have enjoyed the experience, though it was noted that parents and community groups were not involved as much as had been hoped and ongoing evaluation by the programme implementors had been only partial. The evaluation concluded: 'There is ample evidence that this programme has had a substantial impact on the Botswana community...the programme enjoyed substantial objectives achievability and has had a non-trivial impact on the Botswana School Community' (p.47). It is not clear how much is being claimed by this assessment. 'Objectives achievability', however 'substantial', falls short of the achievement of objectives. The evaluation neglected to address the fundamental question of whether children were indeed **learning** in the Programme. The evaluation itself acknowledged that more studies were needed in the Botswana context 'to establish the intrinsic value of the Child-to-Child approach in education (p.51)'. The evaluation also reported that although the number of schools involved in the Little Teacher Programme were still increasing each year participation was falling. This would imply that the programme was becoming 'fatigued' and needed to be revitalised but this implication was not noted in the report.

Further evaluation is needed in three areas to assess the benefits of the Programme:

- (i) to the school in terms of promoting a healthy school ethos and building bridges with the community to support health
- (ii) to the children in terms of educational achievement
- (iii) to the community in terms of changes in health knowledge, attitudes, behaviours and if possible health status.

6.3.2 The wide gap between theory and practice: The concept of Child-to-Child which informs the Little Teacher Programme needs to be redefined and updated. We saw in chapter 4 that the Child-to-Child Trust has begun to define what Child-to-Child is and what it is not. Aspects of the approach which are 'non-negotiable' in the name of Child-

to-Child have been defined (see p.91). Such definition must be used to broaden the conceptualisation used by the Little Teacher Programme and to reorientate it towards comprehensive school health education (WHO 1992, WHO 1994).

Reorientation of the programme necessitates curriculum reform. Preschool preparedness is a relevant aim but a preschool child first needs to be alive - and to start school healthy enough to learn. One approach to curriculum reform would be to ask what older children can do for younger children in terms of educational improvement, social improvement and health improvement. This approach becomes more relevant in addressing the needs of younger children within defined age bands such as 0-2yrs., 2-4 yrs. or 4-6yrs. Lesson plans for the programme urgently need to be revised and brought up to date. They need to incorporate the Child-to-Child methodology and to have increased health content especially in relation to aspects of physical health such as immunization, nutrition and diarrhoea. The curriculum plan also needs to include a monitoring and evaluation component. We are bound to wonder why the lesson plans have not been updated for 16 years and why Child-to-Child as we see it in Botswana has not kept abreast of current thinking. As we saw in Chapter 4 Child-to-Child requires before all else a fundamental change of mind about the role of the child in health education. Where that primary 'conversion' has not taken place or is incomplete it is not to be expected that the content of classroom materials will be called in question or that there will be great interest in the latest ideas from London. The hardest question is how far it is fair to expect in societies such as rural Botswana the kind of thinking and rethinking which Child-to-Child seems to demand. If this is a valid criticism it is not an adverse reflection on the culture of Botswana, though it may well be of the culture in which the philosophy of Child-to-Child was born - and where it still breathes most easily.

To be sure the need for the programme to receive increased support and guidance has been recognised. The Programme Coordinator is admirable in her ability to collect funds and material support but it has been seen that she does need professional and active help in getting the message and theoretical concept of Child-to-Child into the Schools (Colette Hawes 1990) - if, despite the concerns expressed in this chapter, that

message can be got through.

6.3.3 Misunderstandings: The Little Teacher Programme can also be criticised for justifying in the name of Child-to-Child traditional didactic methods where teachers give a talk and then ask children a rapid series of questions to test knowledge. There is a danger that the programme may be using children as megaphones to repeat adult messages. The notion that Child-to-Child is about child educators learning messages from adult teachers and then cooperating by repeating these messages to preschoolers and to their parents at home is at variance with the Child-to-Child concept.

These are serious misconceptions of the character and purpose of Child-to-Child. The searching question is whether Child-to-Child does not lend itself to these misconceptions at least in those non-western societies such as Botswana culturally inimical to the thinking about children which is at the heart of the Child-to-Child approach. Adults may claim that Child-to-Child principles are being followed when all that is happening in practice is that the children are being given more things to do which keep them in their 'proper place'. The question is whether there is some inevitability about this in a culture which takes the subservience of children for granted.

Child-to-Child claims to challenge children to think, to explore, to find out, to learn how to learn, and to make this quest, in all its dimensions, relevant and of practical value in their communities. Child-to-Child claims to be a training in communication in which school teachers discuss with the child educators how they can communicate with adults. In performing their role child educators are to be encouraged to adopt a participatory rather than traditionally didactic model of teaching. These high ideals which Child-to-Child upholds are clear and compelling. But it has yet to be demonstrated, at least in Botswana, that we are not obliged to settle for a reality a long way short of these ideals, such is the strength of the undertow of traditional attitudes towards the child in society.

6.3.4 Poor Programme management: Another set of concerns centre around the financial security of the Programme and the functioning of the management team:

‘(Identifying) more dependable sources of income must become a top priority for the Child-to-Child management team’ (Somerset 1987 p.104). This need is reiterated in the more recent evaluation (Babugura et al 1993). In interview the Programme Coordinator stated that she wanted the Government to take financial responsibility for the programme but assumed that she would remain as the Programme Coordinator. There is also an urgent need for improved management of the team to increase accountability. In recent years communication and cooperation between the members of the team has been poor and the Programme Coordinator has not received the support needed. At the time of the researcher’s last visit to Gaborone in 1993 the management team was in crisis. Elections of members to the Board, which according to the Constitution must take place every three years, were long overdue. Most of the Board members had just resigned and a personal dispute between the Programme Coordinator and the President lead to the last minute cancellation of a UNICEF sponsored workshop.

6.4 Summary

This chapter has considered the acceptability of Child-to-Child in Botswana and compared theory to practice in the context of the Little Teacher Programme. It has argued that at the level of children helping children the approach is acceptable and traditional but at a deeper level which involves adults building partnerships with children it is more problematic. Within the Little Teacher Programme the interpretation of Child-to-Child has been shown to reflect the original formulation of the approach. The programme has failed to respond to the way in which the concept has broadened and deepened during the 1980s and 1990s and is now acknowledged to be ‘fatigued’. It is argued that the interpretation of Child-to-Child needs to be redefined and the programme reoriented to reflect a more comprehensive approach to school health education.

A number of concerns about the programme have been identified and addressed. More rigorous evaluation data is needed to determine the benefits of the programme to the children, their parents and their communities. The gap between the ideas and methods

which inform Child-to-Child and the current practice needs to be reduced. It has been recognised, given traditional constraints, that this is far more easily said than done. More effective management needs to be developed for the programme. Although its ideas are beginning to be used in a wider range of initiatives the potential of Child-to-Child for improving the quality of life for children in Botswana yet to be realised.

PART IV THE FIELD EXPERIMENT

Conceptual Framework for Part III

Organisational level	Primary School	Community
Who is involved?	Head teacher, school teachers, school children preschool children	Parents, guardians, siblings
What is going on?	Programme implementation and day-to-day management	Modelling and re-enforcing positive change in health knowledge, attitudes and behaviours
	Learning, modelling and re-enforcing positive change in knowledge, attitudes and behaviours	
Thesis chapter	<u>The field experiment</u> Chapter 7 Field design and methods Chapter 8 The effectiveness of children as health educators.	Chapter 9 Factors which enable or inhibit the effectiveness of child educators Chapter 10 Case study of learning and schooling of Basarwa children

Chapter 7 FIELD DESIGN AND METHODS

7.1 Introduction

Chapter 1 suggested the need for more school based evaluation studies of the effectiveness of innovative approaches to health education such as Child-to-Child and of the factors which enable or impede success. Studies are especially needed from developing countries. Consequently the field study was located in Botswana where (as we saw in chapter 6) the Child-to-Child Little Teacher Programme is well established in primary schools and has built up sufficient implementation experience to be used as a vehicle for intervention. Field work was conducted between March 1992 and September 1993 and a schedule of activities is presented in appendix 2 (p.A3). At this time there was considerable interest in the Little Teacher Programme because the Second Government Commission on Education was seeking innovative strategies to expand and strengthen preschool education.

This chapter defines the research questions addressed by the study and explores methodological issues which influence the choice of research design. It provides information on schools and subjects involved in the study and describes the methods used for data collection and for training the research team. Problems encountered in the field are acknowledged and addressed.

7.1.1 Aims of the field study: The study aimed to evaluate aspects of the effectiveness of the Little Teacher Programme and to provide insight into the complex processes which secure successful implementation of the approach. Although the ultimate goal of health education is to improve health no major outcome evaluations assessing change in health status have yet been reported in the developing country context. Such studies are difficult to design, owing to the high level of 'noise' in the system caused by other variables which impact on health status. They are also very costly and time consuming to conduct. Within the resources available for the field study it was not possible to conduct an outcome

evaluation. A major constraint was the time needed to devise measurement tools that would be subtle enough to detect what may be quite small changes in health behaviour or status and to establish reliability, validity and sensitivity. The field study therefore aimed to assess how effective the Little Teacher Programme could be at the level of knowledge change. Knowledge change is important if we believe in an educational foundation for health promotion. Uninformed behaviour is not what we are seeking. The complex relationship between knowledge and behaviour has been much debated and there is considerable evidence that knowledge is necessary to effect change in behaviour although not sufficient on its own (Ajzen and Fishbein 1980).

The study also aimed to identify factors which influence programme effectiveness at school and household levels. We saw in chapter 6 (p.117) that the Little Teacher Programme aims to enable children to pass messages to adults and that this can be problematic in societies where traditional wisdom is passed from the older to the younger members. This problem has been recognised by other researchers of Child-to-Child who have stressed the need for more information on the attitudes of parents to receiving ideas from children (Bamisaie 1978; Knight, Grantham-McGregor and Ismail 1991). Consequently the study aimed to explore parental attitudes and to examine the process by which children are enabled to communicate health messages or inhibited from doing so. The researcher was also aware of the need for the study to be gender sensitive. Research in India has suggested that girls are more likely to communicate messages than boys in Child-to-Child initiatives (Zaveri 1988).

7.1.2 Choice of location: The decision to locate the field study in Botswana was determined by pragmatic as well as academic considerations. The researcher wanted to be able to draw on long experience of living and working in African countries to provide insight and to increase personal and professional credibility in the field. The researchers mother-tongue of English needed to be widely understood by health and education workers. The study needed to use a well-established Child-to-Child Programme as a vehicle for the intervention and logistical support needed to be available to facilitate access to the field. The Botswana context met all of these criteria well. The Little Teacher

Programme had thirteen years of implementation experience, the CHILD-to-child Foundation of Botswana could assist with access to the field and the level of English spoken by school teachers and health workers was sufficient to facilitate the fieldwork and dissemination of the findings.

7.1.3 Research questions: The questions addressed in the field study are summarised below:

1. (a) What is the effect of child educators on the ability of preschool children to recall health messages and give account of expected health behaviours?
- (b) What is the effect of performing the role of a health educator on the ability of child educators to recall health messages and give account of expected health behaviours?
2. (a) What is the process by which child educators are able to pass health messages to preschool children and to their own parents?
- (b) What are the important factors which enable or inhibit the effectiveness of child educators?

Additional questions will be addressed by extending the main study to include an urban school and a school for Basarwa children:

3. (a) What is the influence of the poor urban situation on the effectiveness of child educators?
- (b) What is the influence of ethnicity on the effectiveness of child educators?

7.2 Methodological Issues

An extensive literature has built up since the mid 1960s on the relative merits of the positivistic deductive approach to social science research and the alternative inductive approaches (Bryman 1988, Cohen and Manion 1994). However in recent years the division between positivist and non-positivist view has become blurred with the introduction of sophisticated arguments such as those of Kuhn (1970) which contend that positivism is not an accurate model for understanding knowledge processes even in the natural sciences. This debate has profoundly influenced social science thinking not only on issues of methodology but on differing views of the epistemology which underpins the research process itself. Stenhouse (1980) argues that differences of temperament and

training are the real determinants of research style:

(There is) a dichotomy which I perceive not merely as a logical distinction, but also as embodied in the social transactions of the educational research community, which may be thought of as a two-headed animal. The two heads are constantly disagreeing but the terms of the dispute change... The tête-a-tête distinction is now between 'quantitative' and 'qualitative', now between 'psychostatistical' and 'ethnographic' and now again between 'positivist' and 'humanistic'.... The product model is opposed to the process model, the conceptually abstracted to the naturalistic approach. Each of these categorisations reflects differences of value or taste... Each too reflects individual abilities and disables one of the dichotomy's heads; for words fail the psycho-statistician and the ethnographer does not count.... The problem is to get our dichotomy's heads equipped to talk to each other (p.1).

Other writers such as Vulliamy (1990) argue that the debate has been confused by a failure to differentiate considerations of epistemology from those of data collection. Vulliamy distinguishes three very different positions amongst qualitative researchers. At one extreme are researchers such as Lincoln and Guba (1984) for whom the epistemological critique of positivism is so powerful that they view interpretative approaches as the only valid ones for the study of human behaviour and totally discount the combining of different methodologies within a research study. At the other extreme are researchers who in using qualitative approaches see no fundamental difference between these and more conventional research designs such as surveys and experiments. In the middle he places researchers such as Patton (1995) who explicitly locate their stance in relation to the two extreme positions. From this position they make an empirical case that paradigm distinctions are real and useful while also making a pragmatic case that one can usefully mix methods without being limited or inhibited by allegiance to one paradigm or the other.

This discussion on paradigms and methods shows how definitions of qualitative research are in themselves controversial. Researchers disagree about the value of qualitative approaches or indeed whether they are in essence so different from quantitative techniques. It can be argued that current perspectives such as pragmatism and critical theory have qualities of both interpretivism and postpositivism. Consequently Miles and Huberman (1994) contend that 'an increasing number of researchers now see the world with more pragmatic, ecumenical eyes' (p.5).

This debate bears on health education where multi-disciplinary research increasingly demands collaboration between medical doctors and social scientists. Traditional health

education research with its close relationship to the bio-medical model of health has relied on the positivist paradigm. This is reflected in the fact that questionnaire surveys are most commonly used to collect baseline data for primary health care projects. It can be argued that surveys are chosen because medical doctors are so influenced by the biomedical research model that qualitative information on human behaviour is suspect to them (Buzzard 1984).

Increased awareness of the need to understand the cultural, social and environmental barriers which deter people from using health information has led to a shift in the conceptualization of what constitutes valid health education research and approaches to the design of research studies are changing. Social scientists who in the past considered sample surveys to be the most valid and reliable means for documenting social behaviour are now moving increasingly towards more sophisticated study designs with a mix of qualitative and quantitative methods.

The recently increased concern to understand how programmes are experienced by the beneficiaries has led to a remarkable resurgence of interest in qualitative enquiry. Miles and Huberman (1994 p.1) report a threefold increase in the number of books, articles and papers in this field over the last ten years. There has been particular growth in the choice of case study and ethnography as researchers have continued to argue that educational research can be greatly enriched by the use of these more emic approaches (Stenhouse 1979 p.10; Crossley and Vulliamy 1984 p.193; Kenny and Arden 1984 p.37). However even researchers who are strongly committed to qualitative work such as Miles and Huberman (1994) admit that 'deep, dark questions about qualitative studies remain' (p.2) relating to the absence of well formulated methods of analysis. Grounded theory is an extreme example of qualitative methods which starts atheoretically and allows the data collected to generate the theories. There is great flexibility built into the system with data collection and analysis occurring simultaneously. This is an art rather than a science. Miles and Huberman contend that by making the steps of analysis explicit they can be workably replicated.

It is now generally accepted that one should not be narrowly selective in approach as no single design is best in all research contexts. An imaginative combination of different

designs and methods can be used to balance the strengths and limitations of each. The choice of research design and methods must be determined primarily by the questions to be answered and the situational constraints.

7.3 Field design

A field experiment was designed to test the hypotheses that:

- Child educators can have a significant effect on the ability of preschool children to recall health messages and give account of expected health behaviour.
- Performing the role of a child educator can have a significant effect on the child's own ability to recall health messages and give account of expected health behaviour.

The experiment was naturalistic in that it used the Little Teacher Programme as a vehicle for the intervention and aimed to cause only minimal interference with the normal process of the programme. A quasi-experimental design was chosen. It was not possible to randomly assign schools to experimental and control groups because of the need for the intervention to be implemented in a school where there was already a well established Little Teacher Programme. By sacrificing randomised controls the quasi-experimental design lost internal validity and reliability but gained external validity and reduced reactivity. This design allowed the best possible confidence that the observed outcomes would be attributable to the experimental condition. The design involved one dichotomous independent variable, the presence or absence of the intervention programme (table 7.1).

Table 7.1 Before and after design with experimental and control (comparison) groups

	First test	Intervention	Second test
Experimental group	✓	✓	✓
Control group	✓	X	✓

The experimental school was in a poor rural area about 100 km. from Gaborone. It was selected because the Little Teacher Programme was established, because it recruited sufficient children (a minimum of 30 child educators was felt to be needed) and because no previous teaching had been given on the health topics chosen for the intervention. (A photo-record of the field work is presented in appendix 3.) Within this school the entire population of child educators who had self-selected to join the Little Teacher Programme were involved in the study together with the preschoolers paired with the child educators.

Two control (or, more correctly, comparison) schools were chosen which were not involved in the Little Teacher Programme and within these schools the sample of child educator 'equivalents' was randomly selected. The control schools were selected to match the experimental school as closely as possible in terms of geographical location and distance from Gaborone, levels of resource provision (staff to pupil ratio, staff motivation and workload and learning materials), and family background of children (parental occupation and educational level). Descriptive data were collected to check how well the experimental and control schools had been matched because a good match was needed for data validity. These data confirmed that the level of resources, occupations and educational levels of parents were similar in both experimental and control schools. Most parents had received some primary schooling although many had never been to school and a few had received some secondary education. Mothers were mostly engaged in domestic work at home although some earned income from domestic work or petty trading and a few were teachers. Fathers were mostly farmers although many were also in paid employment in the cities or mines.

Care was taken to ensure that the control schools were located at a sufficient distance from the experimental school to preclude intervention messages being passed from experimental to control groups. No incentives were offered to teachers in either the experimental or the control groups to be involved in the field study.

Two other schools were included in the study. One was located in an urban 'slum' area of Gaborone and provided the opportunity to explore the impact of the poor urban context on the effectiveness of the intervention. The other school was in a settlement for

the Basarwa and provided the opportunity to examine the influence of ethnicity on the effectiveness of the intervention programme. Both these schools had some years experience of the Little Teacher Programme. The geographical location of the schools involved in the study is shown in figure 7.1.

Figure 7.1 Map of Botswana (Source: Botswana Ministry of Finance and Development Planning 1987 p.vii in UNICEF 1989)

IMAGES REDACTED DUE TO THIRD PARTY RIGHTS OR OTHER LEGAL ISSUES



7.3.1 The intervention: Between June and October 1992 the team of six Child-to-Child teachers in the experimental school introduced four new health topics into the curriculum of their Little Teacher Programme in the experimental school. Resource materials to support their teaching were supplied by the researcher and are presented in appendix 5. Each teacher received the Child-to-Child Activity Sheet on the health topic allocated to them together with a summary of the main health messages for all four topics in the intervention. The new topics were chosen because they addressed local health needs which had not been taught in the school or promoted through media campaigns (figure 7.2) .

Figure 7.2 Outline of the topics taught in the intervention

<p>Topic 1: Playing with Babies : When, why and how to play with babies.</p> <p>Topic 2: Children's Stools and Hygiene: The cause of diarrhoea; ways in which children can help to stop the spread of germs from stools.</p> <p>Topic 3: Preventing Accidents at Home: Common causes of accidents in the home; ways in which children can help to prevent accidents in the home to themselves and to younger children.</p> <p>Topic 4: Caring for Children with Diarrhoea: The reason why diarrhoea is dangerous; signs and symptoms of diarrhoea; how to prevent diarrhoea; how to treat diarrhoea.</p>
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Topics were taught to the child educators using active learning methods during Little Teacher sessions three times a week. All six school teachers were present during the sessions but they worked in pairs taking turns to lead the one hour sessions. These sessions followed their normal pattern in that they began and ended with children playing running games and singing and included two twenty-minute teaching sessions each of which focused on one of the intervention topics.

After four weeks of teaching (twelve one-hour sessions) the child educators were tested to assess their level of knowledge of the four topics. The knowledge of preschool children, who had not yet been involved in the intervention, was also assessed using the same knowledge test. (This provided the first set of knowledge test data). The school teachers then supervised the child educators whilst they taught the topics to the preschool

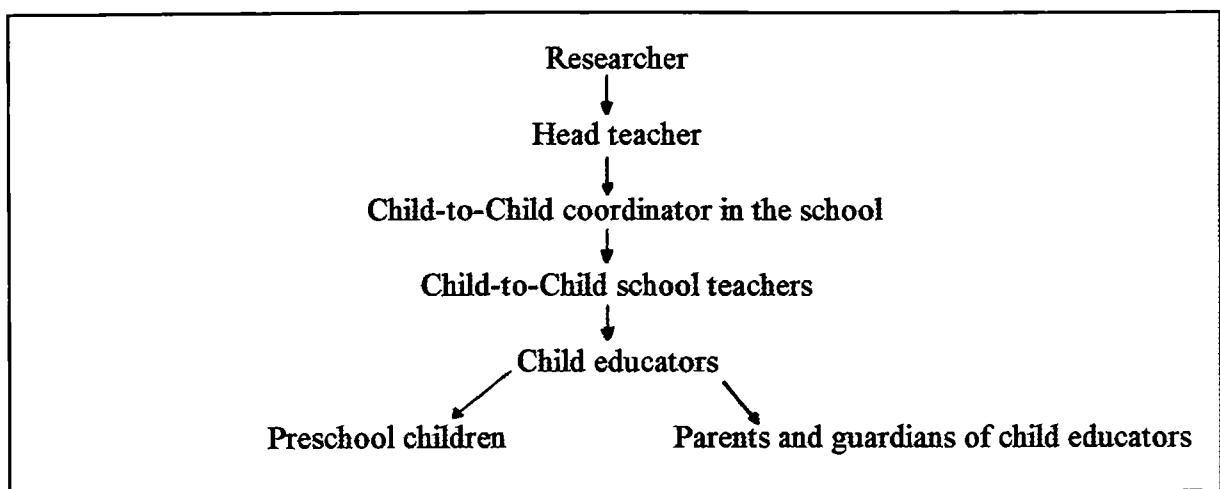
children during the Little Teachers sessions for the next four weeks (twelve sessions). No teaching then took place for four weeks (the August school holiday). After this the school teachers used the first two sessions to revise the topics with the child educators and then supervised them for the next three weeks (nine one-hour sessions) whilst they continued to teach the messages to the preschool children. The knowledge of the child educators and of the preschool children was then assessed again using the same knowledge test as before. (This provided the second set of knowledge test data). The knowledge test data were analysed to determine (i) the effect of child educators on the ability of preschool children to recall health messages and give account of expected health behaviours and (ii) the effect of performing the role of a health educator on the child's own ability to recall the health messages.

Throughout the intervention children were reminded to take the messages home to their parents. The school teacher responsible for coordinating the Little Teacher programme kept a diary of the intervention by completing a proforma record sheet immediately after each session. This provided information on the date, duration, topic and teaching methods used during the session (see appendix 4 p.A43).

7.3.2 Logistics of the intervention: The field study was conducted and the results disseminated through a series of field visits made over a period of 18 months in 1991 and 1992. A schedule of activities is presented in appendix 2. Official permission for the study was obtained from the Office of the President. The researcher then met with the head teacher and the Child-to-Child teachers in each of the schools to explain the purpose of the study and how they would be involved in it and to request their full cooperation. When they had agreed to participate the researcher handed the resource materials needed to support teaching of the intervention topics to the head teacher. The researcher encouraged the teachers to adapt the resource materials and use them to develop further learning materials. The head teacher, together with the teacher responsible for coordinating the Little Teacher Programme in the school, then developed a schedule for the intervention allocating topics to the Child-to-Child teachers. As there were six teachers and four topics two of the topics were taught jointly by a pair of teachers.

The communication pathway for the intervention messages is summarised in figure 7.3. The researcher gave the messages to the head who passed them to the school teacher responsible for coordinating the Little Teacher Programme. This teacher passed them to the other five Child-to-Child teachers in the team. These teachers passed the messages to the child educators and then supervised them whilst they passed the messages to the preschool children. The school teachers asked all the children to take the messages home to their parents or guardians.

Figure 7.3 Communication pathway for health messages in the intervention.



7.4 Field Methods

In addition to the knowledge test a range of qualitative research methods were used in the study. These methods were built around the intervention to collect data needed to explore the process by which children were able to pass messages to their parents and to identify factors which enabled or inhibited their ability to do so. Child-to-Child teachers were interviewed and observations were made during visits to the homes of the child educators. Focus group discussions were conducted with children and with their parents and children were involved in a method known as draw-and-write.

This mixture of methods allowed cross-checking to help validate the data. For example, data from focus group discussions were cross-checked with interview data from teachers

and with observations made during home visits. Full use was also made of opportunities arising during visits to schools or homes for informal discussion and observation to help build up a picture of the context in which the intervention had been implemented. The research methods are detailed below. Focus groups and draw-and-write are addressed at some length because they are novel and less commonly seen in the literature. Tools used for data collection are presented in appendix 4.

7.4.1 Questionnaire: A short questionnaire was developed to collect descriptive data from which to assess how well the experimental and control groups had been matched. This included information on the age, gender of the child educators and preschool children and on parental age, occupation and educational background (see appendix 4 p.A25). School registers were scrutinized to collect information on the date of first entry into school to calculate how many years of schooling each child had received.

7.4.2 Knowledge test: The knowledge test was developed, translated and back-translated, pre-tested in the field and then modified before being used. School teachers were trained to administer the test by showing the respondent a series of picture 'triggers', asking questions about the pictures and recording the answers on a questionnaire. The pictures were bound together in a booklet for ease of use in the field. The first picture shown was not part of the test but it was used to settle the respondent and focus attention on the task (p.A33). The questionnaire was pre-coded with answers taken from the Activity Sheets and space was provided for verbatim reporting of any other answer given. Respondents were tested individually and the testing process lasted about 30 minutes. As the test required only verbal response it was not affected by low literacy rates and could be used for both adult and child respondents. The same test questions and pictures were used for both the first and second tests.

Testing was carefully supervised by the researcher who ensured that respondents could not hear each other's responses and checked each test paper as soon as it was completed to ensure that a response was given for each question. Where teachers appeared to have difficulty administering the test, or where test scores appeared unusually high or low an enumerator check was carried out with one of the field team sitting alongside the teacher

and simultaneously recording the next test to check for discrepancy. All suspect papers were discarded. A photo-record of the knowledge test data being collected is provided in appendix 3 (p.A11) and the results of data analysis are presented in chapter 8. The tool for the knowledge test is in appendix 4 (pp.A26-A42).

The school teachers also administered the test to the parents of the child educators and their equivalents. However the school teachers felt strongly that parents could only be requested to attend on one occasion and so it was not possible to use statistical analysis to determine how much they had learned during the intervention. However the knowledge test data were useful for selecting parents to join the focus groups.

7.4.3 Focus groups: Health promoters are aware of the need to understand why health messages frequently fail to bring about desired changes in health behaviour. Exploratory methods such as focus group discussions can be used to help understand human behaviour because the interactions between members of the group allow detailed information to be collected on beliefs, values and attitudes, conflicts and contradictions. Focus groups have been used in market research since the 1920s (Khan and Manderson 1992) but have only recently been taken up by the wider research community as the credibility of participatory research techniques has increased.

Focus groups are currently making a substantial contribution to the theory and practice of health education (Morgan and Spanish 1983; Basch 1987). They are frequently used to explore issues around sexual and reproductive health (Folch-Lyon and Trost 1981; Suyono, Piet, Stirling and Ross 1981; Freedman 1987) and nutrition (Scrimshaw and Hurtado 1987). The literature provides much detail on the methodology of focus groups, in particular the rules for structuring the groups and conducting the discussion (Morgan 1988; Khan and Manderson 1992). Key features of the method are presented in appendix 4 (p.A44).

Focus groups involve a small group of people (usually about six) specifically selected to explore the range of beliefs and attitudes in the study population. It is generally accepted that at least two focus groups should be held for each variable considered relevant to the

topic (Morgan 1988; Scrimshaw and Hurtado 1987). Participants are invited to come together at a set time and place to discuss a specific issue for about one and a half hours. The groups are homogenous for characteristics salient to the discussions and are held in natural settings such as private homes, school or community rooms. Discussion is facilitated by a trained researcher who uses a pre-tested line of questioning to stimulate dialogue. The facilitator starts with general, indirect questions and then focuses down on the topic of particular interest using more specific questions. The questioning is flexible and relaxed to allow the facilitator to prompt and to probe ideas and opinions and to stimulate further interaction and discussion within the group. The discussion is tape-recorded. A non-participant observer takes notes of non-verbal interactions, documents the exchanges and the general content of the discussion and transcribes the taped recording which then serves as the basis for data analysis.

The use of focus groups in the field study: Focus groups with school children and with their parents provided data on the process by which child educators were able to pass messages to their parents. Focus groups were conducted in Setswana. The researcher trained members of the field team to facilitate the discussion groups and act as non-participant observers. The guidelines developed for training the research team are provided in appendix 6 (A79-A80). The briefing paper and guidelines for the focus groups are provided in appendix 4 (pp.A44-A49) and an example is presented in figure 7.4.

During the focus group the facilitator adopted a relaxed and non-critical role and avoided leading questions. Participants were assured that there were no right or wrong answers to any of the questions raised. All answers were equally right. They were encouraged to speak out with the courage of their convictions and say what they really thought. The facilitator began by telling a story and showing two pictures (see appendix 4 pp.A48-49) to stimulate discussion. The facilitator followed up this opening discussion using questions to prompt and probe in order to clarify and encourage further elaboration. He or she was careful not to dominate the discussion and to allow participants flexibility in the order and direction of questions. Active participation was encouraged and everyone was given a chance to speak.

Figure 7.4 Guidelines for Facilitators of Focus Groups

The group will meet together for 2 hours and two separate discussions will be conducted of 45 minutes each. The first discussion will explore the attitudes of parents to learning from their children and try to identify factors which help this learning or which impede it. The group will then have a break before the second discussion which will explore the beliefs and practices of participants about caring for children with diarrhoea.

First discussion: To explore the process by which children can pass health messages to their parents

Start by welcoming participants into the focus group and helping people feel relaxed. Explain the purpose of the focus group and the discussion topics and timing. Introduce the topic by showing Picture 1 (the picture of Moagi playing with his baby sister) and telling the following story:

This is a story about Moagi. He is 9 years old and attends a school where he learns many ways of helping his younger brother and sisters to grow and develop well and to keep strong and healthy. He is encouraged to pass health messages to his family and to practice the messages at home. At home he spends more time playing with his baby sister and making toys for her. He watches her to make sure she doesn't have an accident. He helps to keep the house clean and takes his little brother to use the latrine. He asks his mother where he can find soap and water to wash their hands. His mother notices all the activities her son is now doing and wants to discuss the changes with her husband.

Show picture 2 and explain that this is Moagi's mother talking to his father. Now facilitate the discussion leading on from the story using some of the following questions to guide the discussion.

- What do you think Moagi's mother will say to her husband?
- What do you think her husband will reply?
- Would the conversation be any different if the school child (Moagi) was a girl?
- How do these parents feel about the idea of learning from their children?
- What would grandparents feel about it?
- How did this mother learn from her child?
- Do you learn from your children?
- If so how do you feel about it?
- Have your children brought home any new health messages recently?
- If so what are the messages?
- Was it your son or your daughter who brought the message?
- How did they pass the message to you?
- What other ways are there for parents to learn from their children?
- What kind of health messages are useful for children to learn and practice at home - why?
- What kind of health messages are not useful for children to discuss with parents - why?
- Who do girls talk to most at home - why?
- Who do boys talk to most at home - why?
- If we accept health messages from our children can we make changes to improve our health at home? (eg. can we use more water, buy more soap, give children more time to play with their younger brothers and sisters etc.).

The researcher selected participants for the focus groups and organized the recording of the discussions but did not remain in the room during the discussion to avoid distortion of data. Each focus group lasted about two hours. For the first forty-five minutes discussion focused on the attitude of parents to learning from their children and after a break for refreshments the second forty-five minutes were used to discuss beliefs and practices related to the health topics taught in the intervention. The non-participant observer made a written record of the focus group discussions and a proforma record sheet was provided to assist with this task (see appendix 4 p.A52). The observer also attempted to keep a record of non-verbal interactions and exchanges to supplement the audio-tape record. The observer was responsible for transcribing the audio-tape recordings from Setswana into English and producing a written verbatim record. (A photo-record of the focus groups is provided in appendix 3 pp.A13-A14.)

7.4.4 The Draw-and-Write Method: This is an innovative approach for exploring children's perceptions of health. The recent upsurge of interest in this method reflects the need to find participatory approaches which can increase our understanding of children and how they see the world. Such understanding is instrumental to improving the relevance and effectiveness of educational interventions and there are important ethical reasons for using child-centred approaches which incorporate children's own ideas, beliefs and metaphors.

Traditionally, however, much health research has been done **on** rather than **with** children. Children's human figure drawings have long been used in clinical tests for diagnosing personality and emotional difficulties despite widespread scepticism over the validity of projective interpretation of such drawings (Thomas and Silk, 1990). Interest in art as therapy is increasing because the process of drawing has been shown to be a powerful means of overcoming barriers to communication and promoting healing dialogue (Thomas and Silk 1990).

A range of innovative methods for visualising health are now being used which involve developing pictures, maps and diagrams and interpreting problem-posing pictures (Welbourne 1992; IIED1995). The use of drawing in conjunction with writing or

dialogue has become increasingly used as evidence has strengthened to show that it can be a powerful 'bottom up' method of exploring the health perceptions of young children (Williams, Wetton and Moon 1989; Bendelow and Oakley 1993; Barnett, Francis, de Koning and Shaver, 1994). Draw-and-write could be used to tackle many of the serious problems in the design and delivery of health programmes which had led to failure in the past. It could enable teachers to improve the relevance of their teaching and help them to assess the impact of their teaching on the children. The process of drawing encourages children to relax, to concentrate their thoughts and to take time to reflect before expressing themselves.

If this technique is to be widely promoted for use with children, however, issues of concern over its proper use need to be addressed. This technique is powerful because the act of drawing can help to break down barriers and allow strong emotions to be expressed. Thought must be given about how children can be helped to come to terms with these emotions. Cases of special need must be followed up through further discussion or action. Attention must also be given to the ownership and use of the drawings and writing. If children are asked to provide sensitive data, for example relating to sexual practices or drug use, they may not want teachers to see it. Care must be taken to ensure confidentiality. At the same time the insight provided by the technique needs to be used to provide useful feedback to children, teachers and others. It is also important that children interpret their own drawings and that the written or recorded comments are used as the basis of analysis. As previously mentioned many experts are sceptical about the validity of using children's drawings projectively and the draw-and-write technique makes no claim to do this.

The use of draw-and-write in the field study: This method was used to collect data on children's perceptions of health and illness which could influence their acceptance of health messages. The focus groups with children had not yielded data on health perceptions, equivalent to that provided by the focus groups for parents and, consequently, additional data needed to be collected. Draw-and-write was considered to be a more reliable method of collecting this type of information from small children than focus groups. This method also had other advantages. It actively involved children in an enjoyable activity. It stimulated them to explore their own perceptions of health and to express their ideas

through drawing and writing. It was non-threatening to the children, their teachers and parents and it could be easily used in the school setting in the time available.

An opportunity was taken to collect this additional data on a subsequent visit to each of the schools nine months after the intervention programme. These visits had been arranged to discuss preliminary findings of the research programme and included discussion with parents, other community members, teachers and children. Permission could therefore be negotiated for data to be collected using draw-and-write without giving prior notice, thereby avoiding children being rehearsed in any way.

When draw-and-write was conducted the researcher had become a sufficiently familiar figure in the classroom to take charge of the session without undue disruption. A school teacher was trained to help as a facilitator. The researcher and facilitator agreed the Setswana words which were to be used with the children to mean healthy (*tshameka*) unhealthy (*nwa*) and die (*swa*). This was important because words colour children's understanding of instructions and their subsequent response. It was also agreed that no clues or hints should be given to the children about what they should draw or write and that children should not be permitted to share ideas with each other during the session.

After exchanging welcomes and greetings the researcher and facilitator spent about ten minutes developing rapport with the children and building up trust. The purpose of the research and the use to be made of the drawings and writing was carefully explained and children were asked if they would like to participate. It was stressed that this was not a test, that no marks would be given by teachers and that there were no right or wrong answers. All answers were equally right. It was made clear that children's confidentiality would be respected and that it was all right for any child to decide to opt out. However disparities of power between adults and children within the school setting made it very difficult for children to refuse to take part.

Each child was given a sheet of plain (A4 size) paper and a medium soft pencil and asked to write down their age, sex and the name of their school at the top of the sheet. Once the children had settled down they were asked to think about all the things they did or

could do to make and keep themselves healthy and cautioned not to tell anyone else what they were thinking. Then they were asked to draw as many of these things as they could on one side of the paper and to write what was happening in each of the pictures. Children were continually encouraged to keep their drawings secret from each other and to ask the teacher (facilitator) for help if they had difficulties with writing. After twenty minutes children were asked to turn their paper over, to think about all the things they did or could do to make themselves unhealthy, and to draw and write as before. After a further twenty minutes these papers were collected in and children allowed to relax for five minutes whilst clean sheets of paper were distributed. Children were then asked to think about the things that happened which made most people die and to draw and write about these as before.

After twenty minutes the papers were collected in. Before finishing the session children were debriefed about the session to help them come to terms with any strong emotions which the process of drawing may have aroused. They were asked to share their feelings about the exercise, to say what they had enjoyed and not enjoyed and why, and to ask any other questions they wanted to.

Throughout the session an orderly but unthreatening atmosphere was maintained in the classroom and the children encouraged to relax and enjoy their drawing. The facilitator translated the instructions into Setswana and all verbal exchanges in Setswana between the facilitator and the children were translated into English. In the Bushman settlement school a second facilitator was trained so that key words could be translated from Setswana into the children's mother tongue (Sesarwa). Every effort was made to minimise the possibility of shared responses and the extent to which the children drew or wrote about what they found easiest to depict rather than what was most important to them.

The end of the lesson was timed to coincide with a meal break during which the school teachers who were involved in the study translated the children's writing (which accompanied their drawings) from Setswana into English. A photo-record of the draw-and-write session is provided in appendix 3 (p.A15) and the detailed guideline used for conducting the session is in appendix 4 (p.A53).

7.5 Training the research team and pre-testing the tools

The researcher conducted workshops in each school involved in the study to train teachers to administer the knowledge test. A workshop was also conducted to train a team of four field workers to assist with data collection. These field workers were the Programme Coordinator from the CHILD-to-Child Foundation of Botswana (a trained teacher), two social work students from the University of Botswana on secondment to the CHILD-to-child Foundation and a health educator employed by the Ministry of Health (who was the only male member of the team).

All members of the team had previous experience of field work. This team helped to pre-test the tools for the knowledge test and focus groups, acted as facilitators and non-participant observers for the focus groups and carried out checks on the enumerators conducting the knowledge tests. (Details of the training which involved role play are given in appendix 4 pp.A79-80)

School teachers were selected to administer the knowledge test because it was felt that they would be best able to help the children to feel relaxed and confident and make sure that they understood what was being asked of them. They were able to make the testing fun for children and to help maintain their concentration. It was also considered desirable to involve teachers as much as possible in the research process. The teachers taking part were all women because none of the lower primary classes in these schools were taught by men.

Field workers were selected to run the focus groups because the presence of the researcher as an outsider together with a translator would have altered the group dynamic and could have reduced data quality, particularly with the child educators. During training and pretesting two members of the team demonstrated particular aptitude for facilitating focus group discussions and another was an efficient note-taker.

The pictures and questions comprising the knowledge test were pre-tested in London with two Setswana speaking students and also in Botswana with the field study team, school

teachers, school children and preschool children. The purpose of pre-testing was to ensure pictures were culturally appropriate and conveyed the correct message and that the accompanying questions could be understood. It was also important to ensure that the pictures together with the questions were an effective means of testing the knowledge included in the intervention programme. At each stage of the pre-testing the tools were modified in response to feedback. (See appendix 3 p.A12 for a photo-record of pretesting.)

7.6 The subjects involved in the study

The experimental group comprised 31 child educators and their parents (or guardians) and 20 preschool children. As previously mentioned the child educators were self-selected, having voluntarily chosen to join the Little Teacher Programme which was open to children in the first three years (standards 1, 2 and 3). The preschool children were also self-selected in that their parents had enrolled them as preschoolers in the Little Teacher Programme. Each preschool child had been paired with a child educator when they first joined the Little Teacher Programme. There were usually extra child educators wanting to join the programme and these children either helped a preschool child whose 'twin' was absent or helped another child educator to teach their preschool 'twin'.

As previously stated (p.145) the control group came from two schools which were similar to the experimental school but were not involved with the Little Teacher Programme. This group comprised 60 child educator 'equivalents' and their parents (or guardians) and 13 preschool children. The child educators were selected from Standards 1, 2 and 3 by inviting the first 10 children named on the class register who were present on the day of data collection to join the study. There were no preschoolers in the control schools because, as we saw in chapter 5, the Ministry of Education does not provide preschool education. The control group of preschoolers therefore comprised children who were registered to start in standard 1 at the beginning of the next school year and whose parents could be contacted and were willing to bring them to join the study. It was not possible to contact any preschool children from one of the control schools and therefore the 13

preschooler children who were tested all came from the other school.

In both the experimental and control groups parents (or guardians) were mostly women. Only 17 men (16% of the adult sample) were involved in the study. Many reasons were given by mothers for the absence of fathers: There were many single female-headed families; fathers had migrated to work in the mines and cities; fathers were away at the cattle post; fathers were employed locally but not able to leave their jobs for the study; fathers did not want to publicly acknowledge paternity.

7.6.1 Sub-sample for the focus groups and home visits: Focus groups were conducted with groups of about six participants. Mothers, fathers, and child educators were in separate groups. Adults were selected so that each group had a range of ability. This was secured by administering the knowledge test to parents and selecting three parents with high scores and three with low scores for each focus group. The children selected were mostly high scorers in the knowledge test. Three focus groups were conducted for mothers in the experimental group and two in the control group. No fathers were available for focus groups in the experimental group but two focus groups were conducted in the control group. There were two focus groups for child educators (boys and girls were together) in the experimental group and one in the control group.

After each of the focus groups one mother was selected who appeared to have a good knowledge of the health messages in the intervention and one who did not. Permission was requested from these mothers to conduct a home visit and all mothers agreed. The purpose of the home visit was to find out whether the health messages were being put into practice at home and to gain a better understanding of the home context. Four visits were made to homes in the experimental group and four to homes in the control group.

7.6.2 Samples for the research extension: In the urban school the class teacher for standard 3 was the only teacher actively involved in running the Little Teacher Programme and she recruited the whole of her class onto the intervention together with the preschool children. (Children could opt out of these sessions but rarely did so.) Because she was the only teacher available for administering the knowledge test she could only test the first

8 child educators on the class register in the time she had available. She also tested their preschool 'twins'. In the Bushman settlement school time was not a constraint but only 7 of the preschoolers were able to be tested because of language difficulties. The 8 child educators paired with these preschool children were also tested.

7.6.3 Sample of school children involved in draw-and-write: Data were collected from all the children available on the day of the visit who had been involved in the intervention programme. Children in one of the control schools were also involved. It was not possible to arrange data collection in the other school (school 2) during the time available for the field visit. To provide a more focused view of children's perceptions data were only analysed from children aged 9 and 10 years.

7.7 Problems and concerns

7.7.1 Attrition from the study: Data were lost from the study because some children were absent for the second test. Those absent were 3 out of 20 (17%) preschool children in the experimental group and 2 out of 13 (15%) preschool children in the control group. No specific reason was found for their absence. There was no attrition of child educators in the experimental group but 10 out of 60 (17%) child educators were lost from the control group. In one school the records showed that the child who was lost to the study had been transferred to another school during the period of the intervention. In the other school the reason given by the class teachers for the absence of 9 children was that they had travelled to the cattle stations.

Data were also lost from the study through being judged unreliable. During the preliminary statistical analysis of knowledge test data 2 preschool records and 6 child educator records in the experimental group were removed because an enumerator check had shown the data to be unreliable.

7.7.2 Methodological problems: A number of design problems could have introduced 'noise' or bias into the system. Bias could have arisen from differences between schools

but no evidence was found that the experimental school was better resourced or supported than the control schools or that they served a more elite community. Hawthorne effects may have resulted in more effort being made because people were aware that they were involved in a study and that an 'outside' researcher was interested in them. To try to avoid this bias the intervention was naturalistic in that it made a minimal intrusion into the existing Little Teacher Programme. It is a pity that the child educators were not tested before they were taught by the school teachers as the experimental group might have started with a higher knowledge level of the intervention topics than the control group. Although this information would have been useful, the purpose of the analysis was to measure change in knowledge of the child educators as a result of the practice they gained from teaching the preschoolers. Bias could also have been introduced by the involvement of the researcher in data collection and analysis. However this is unlikely because much of the data was collected by school teachers and the field team (under the supervision of the researcher). The field team also transcribed the tape recordings and the teachers translated the writing which accompanied the children's drawings.

7.8 Summary

The purpose of this chapter has been to describe the design and methods of the field study conducted in Botswana to explore the effectiveness of children as health educators and to identify factors which enable or inhibit their effectiveness. The debate surrounding different approaches to research has been addressed and it has been argued that a combination of different research designs and methods can be used to balance the strengths and limitations of each. The choice of research design and methods must be determined primarily by the questions to be answered and the situational constraints. The design chosen for the field study involved a quasi-experiment in which an intervention was made within the established Child-to-Child Little Teacher Programme. Information has been provided on the methods used to collect data. Focus groups and draw-and-write have been discussed at some length because they are novel. Details of the research tools and study samples have been provided and possible sources of bias have been identified and addressed.

Chapter 8 THE EFFECTIVENESS OF CHILDREN AS HEALTH EDUCATORS

8.1 Introduction

This chapter presents an analysis of the knowledge test data to assess (i) the effect of child educators on the ability of preschool children to recall health messages and to give account of expected health behaviours and (ii) the effect of performing their role as health educators on their own test scores.

As we saw in chapter 7 the field study involved one dichotomous independent variable, the presence or absence of the experimental intervention. The experimental group comprised the entire population of child educators (n=31) and preschool children (n=20) from a school where the Little Teacher Programme was established. These children had self-selected to join the programme. The control (comparison) group came from two schools similar to the experimental school but where there was no Little Teacher Programme. Within these schools a sample of 60 child educator 'equivalents' was randomly selected from standards 1, 2 and 3. There were no preschool children in the control schools because preschool education is not yet provided within the Government education system. Most children remain at home until they start standard 1. The control group of preschoolers (n=13) was obtained by contacting the parents of children who were registered to begin standard 1 at the beginning of the next school year. It was not possible to contact any parents of preschool children from one of the control schools and consequently the preschool children in the control group all came from the other control school.

After the schoolteachers had taught the four new topics in the intervention programme to the child educators for twelve one-hour sessions over a period of four weeks the knowledge test was administered to assess the children's knowledge of the topics. Before the preschool children were included in the intervention the same knowledge test was administered to find out how much they already knew. At this time the knowledge test

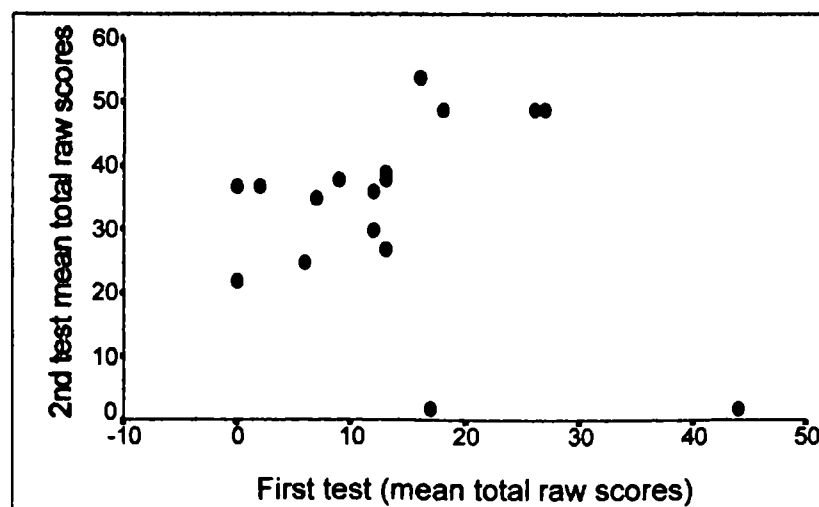
was also applied to children in the control group.

The level of knowledge of all the children involved in the study in both experimental and control groups was measured again three months later using the same knowledge test administered by the same enumerator. During these three months the child educators had taught the new messages to the preschool children for twelve one-hour sessions over a period of four weeks. This teaching was followed by a four week break during the school vacation. When term started again the school teachers had revised the topics with the child educators for three one-hour sessions during the first week of term and then the child educators had continued to teach the topics to the preschool children for the next nine one-hour sessions over a period of three weeks. During the period of the intervention programme children in the control group had received no teaching on the intervention topics.

8.2 Preliminary analysis

If a child had not completed both first and second test their record was discarded. Some preliminary analysis was then conducted to identify obvious discrepancies in the remaining data sets. As shown in figure 8.1 two 'outliers' were found on a scatterplot of test scores

Figure 8.1 Test scores for preschool children in the experimental group showing 'outliers'.



which indicated that children had scored highly on the first test and zero on the second test. It was found that these tests had been conducted by the same enumerator who had appeared unreliable during the testing and an enumerator check had been conducted. This check confirmed that the data were unreliable. These data were therefore removed from the final data set together with the test data from six other child educators whose tests had also been conducted by this enumerator. The composition of the final data set for statistical analysis is shown in table 8.1.

Table 8.1 Composition of the final data set for statistical analysis

	Experimental group	Control group
Preschool children	n = 15	n = 11
Child educators	n = 27	n = 50

8.2.1 Description of the sample: The preschool children were fairly well matched between experimental and control groups for numbers, age and gender (table 8.2). The mean age was slightly lower in the experimental group than in the control group (5.5 yrs. cf 6.2 yrs.) with little variation within each group (<1 S.D.) but there was a wider age range in the experimental group than the control group (4-7yrs.cf 5-7yrs.) (figure 8.2). The genders were fairly equally distributed in both groups although there was a slightly higher proportion of boys in the experimental group than in the control group (60% cf 46%) (figure 8.3).

Table 8.2 Description of the preschool children

	Experimental (n=15)	Control (n=11)
Age (yrs.) : mean	5.5 (SD 0.7)	6.2 (SD 0.6)
: range	4 - 7	5 - 7
Gender : boys	n = 9 (60%)	n = 5 (46%)
: girls	n = 6 (40%)	n = 6 (54%)

The child educators were also fairly well matched between experimental and control groups for age although the mean age of the experimental group was slightly higher than that of the control group (9.1 yrs. cf 8.2 yrs.) with little variation within each group (S.D.<1.5) (table 8.3 and figure 8.2). Both experimental and control groups included children who had received between one and three years of schooling and in both groups the mean number of years of schooling was two years (table 8.2 and figures 8.5 and 8.6).

The two groups were not well matched for numbers of children with only 27 in the experimental group compared to 50 in the control group (table 8.3). The disparity was caused by the loss of one experimental school from the study. After agreeing to participate this school was asked by the Ministry of Education to develop and run an in-service training course. In order to conduct this course the teachers stopped running the Little Teacher Programme for some months and the school dropped out of the study.

The two groups were also not well matched for the distribution of gender. There were only 4 boys (15%) in the experimental group compared to 21 (42%) in the control group figure 8.3 and figure 8.7. The influence of age, gender and years of schooling on the test scores has been explored through regression analysis and the results are presented later in this chapter.

Table 8.3 Description of the child-educators

	Experiment n = 27	Control n = 50
Age in years: mean : range	9.1 (SD 1.1) 7 - 11	8.6 (SD 1.3) 7 - 13
Years of schooling: mean : range	2.4 (SD 0.8) 1 - 3	2.2 (SD 0.8) 1 - 3
Gender: boys : girls	n = 4 (15%) n = 23 (85%)	n = 21 (42%) n = 29 (58%)

8.2.2 Mean total test scores: After the intervention the mean total test scores had increased by 26 points for preschool children in the experimental group compared to 3 points for the controls, and by 13 points for the child educators compared to 1 point for the controls (table 8.4).

Figure 8.2 Age distribution of preschool children.

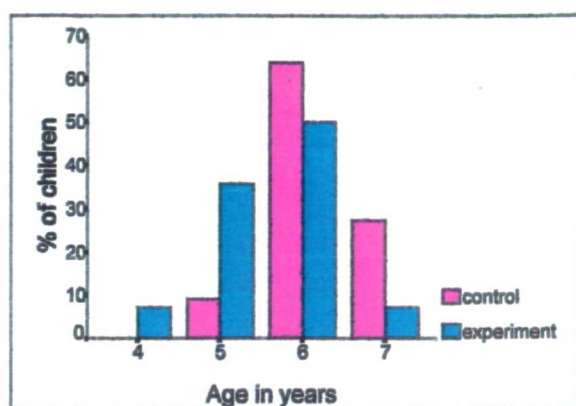


Figure 8.3 Gender distribution of preschool children.

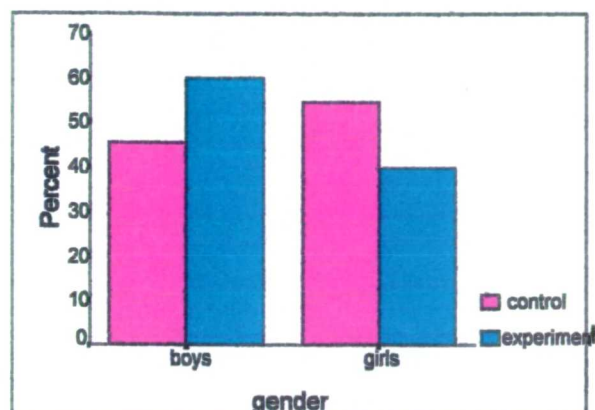


Figure 8.4 Age distribution of child educators.

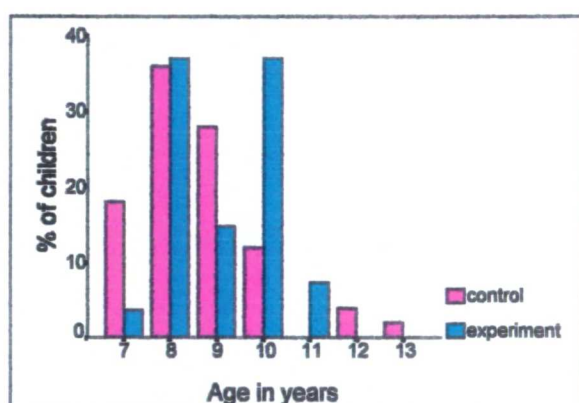


Figure 8.5 Years of schooling of child educators.

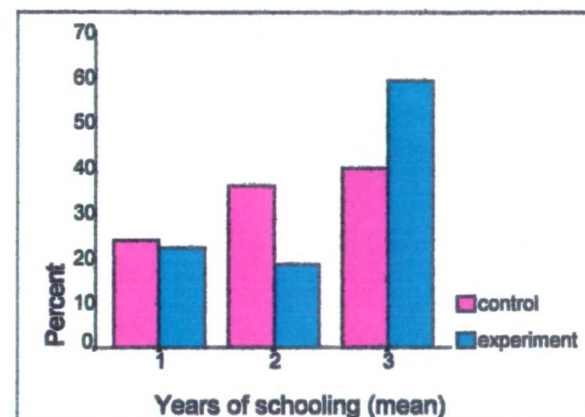


Figure 8.6 Years of schooling of child educators (disaggregated by school).

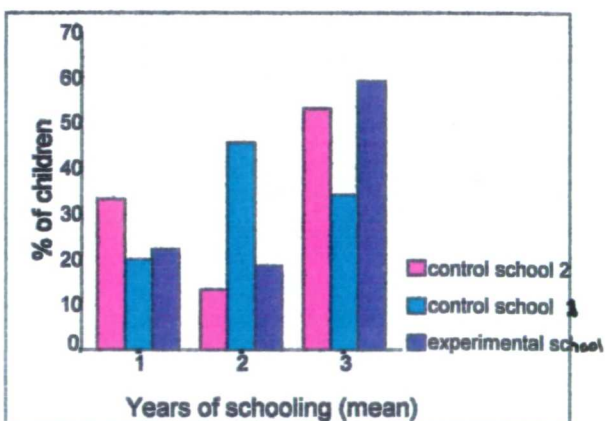


Figure 8.7 Gender distribution of child educators.

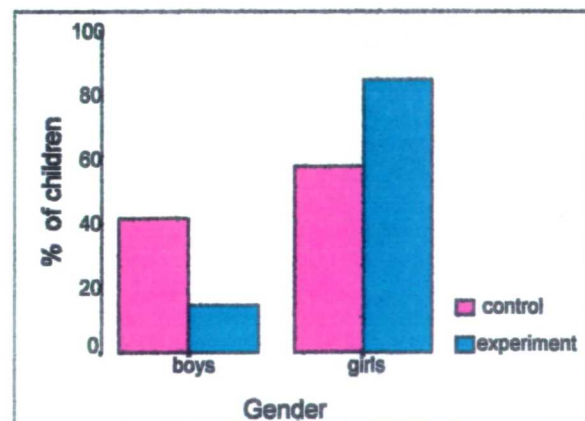


Table 8.4 Mean total test scores (out of 60)

	Experiment	Control
<u>Preschool children</u>	n = 15	n = 14
first test	12 (S.D. 8.2)	13 (S.D. 8.4)
second test	38 (S.D. 9.4)	16 (S.D. 6.5)
gain in score	26	3
<u>Child educators</u>	n = 27	n = 50
first test	31 (S.D. 9.2)	20 (S.D. 8.1)
second test	44 (S.D. 7.6)	20 (S.D. 9.3)
gain in score	13	0

8.3 Further analysis of knowledge test scores

The test scores were analysed further using regression. The 0.05 error level was selected to indicate statistical significance because it was considered preferable to accept a higher risk of showing a false positive result (ie. child educators having a significant effect on the ability of preschoolers to recall health messages when they did not) than of showing a false negative. The error level was set where it was to reduce the risk of doing unnecessary harm to the Child-to-Child programme which could happen if a very stringent level (0.01) were set and not reached. The residuals were initially checked and found to be normally distributed so that raw test scores could be used. A residual plot was scrutinised at each step of the analysis and no evidence was found that the regression model was inappropriate.

8.3.1 Analysis of test scores from preschool children: The analysis confirmed that after the intervention preschool children in the experimental group had made significantly better progress than those in the control group (table 8.5). The final score contrasts estimated that each extra point on the first test score contributed 0.8 points to the second test and the fixed benefit of being in the experimental group was 22.7 points. Age and gender were not found to be significant predictors of the post-test score. An interaction effect was looked for but not found and the benefit of being in the experimental group was therefore constant across the full range of ability. (Figure 8.8.)

Table 8.5 Regression analysis of knowledge test scores from preschool children

Analysis of variance	df	SS	MS	F	Signif. F
Regression	4	3960.6	990.1	27.2	0.000
Residual	20	728.4	36.4		
Total variance accounted for (R Square) = 84.5% standard error = 6.8					
Variables	B (partial regression coefficients)	s.e.	Beta (standardised regression coefficients)	T	Sig T
First test score	0.8	0.2	0.5	5.0	0.0001
Benefit of being in experimental group	22.7	2.7	0.8	8.4	0.0000
Age	-0.3	1.8	-0.02	-0.2	0.8582
Gender	-3.1	2.6	-0.1	-1.2	0.2456
(Constant)	12.2	12.3		1.0	0.3373

8.3.2 Analysis of test scores from child educators: Regression analysis confirmed that the child educators in the experimental group had made significantly better progress than those in the control group (table 8.6). The final score contrasts estimated that each extra point on the first test score contributed 0.3 of a point on the second test and the fixed benefit of being in the experimental group was 21.5 points. Although the slopes of the regression lines for experimental and control groups were similar the experimental group had achieved significantly higher scores (figure 8.9). There was a small benefit of 1.1 points from being in control school 1 rather than control school 2 but this was not statistically significant. (Figure 8.10.)

A very marginal gender effect was found with girls doing slightly better than boys by 2.7 points. Although this was not statistically significant it should be noted because there was a considerably higher proportion of girls in the experimental group than in the control group (figure 8.11) and the mean total gain score was considerably higher for girls than for boys (6.6 cf 0.2). This finding would imply that at least a small part of the differential gain between the experimental and control group was due to gender.

Figure 8.8 Test scores for preschool children by experimental/control group.

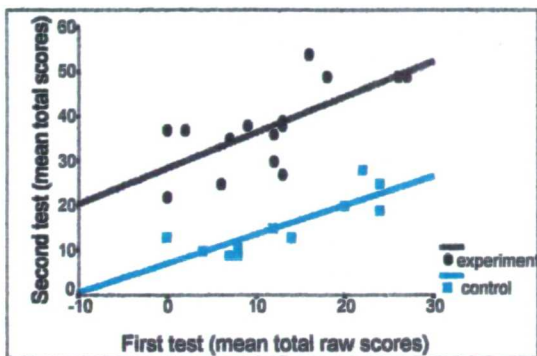


Figure 8.9 Test scores for child educators by experimental/control group.

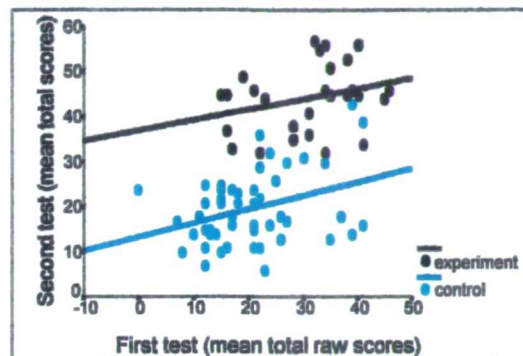


Figure 8.10 Test scores for child educators by school.

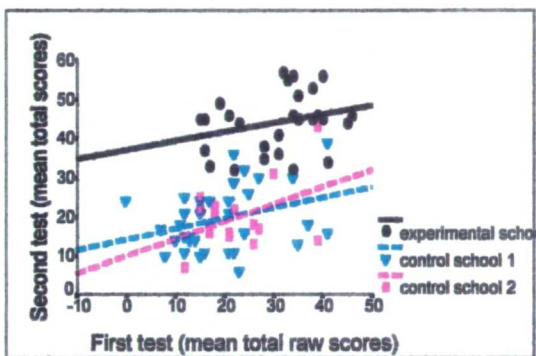


Figure 8.11 Test scores for child educators by gender.

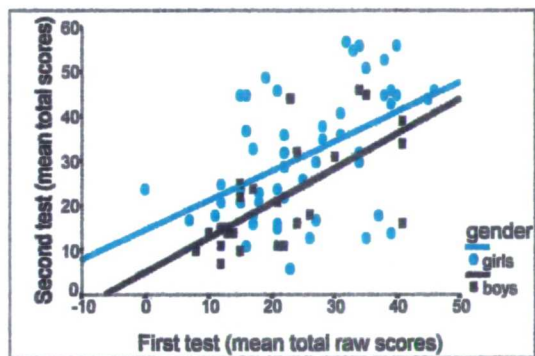


Figure 8.12 Test scores for preschool children in the urban school.

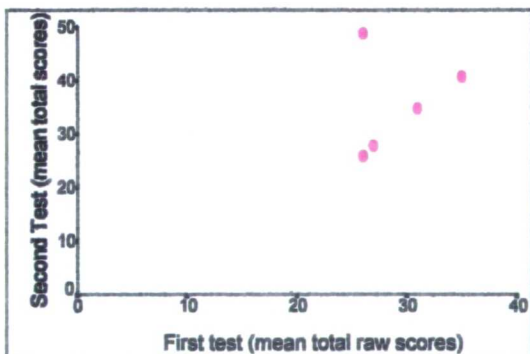
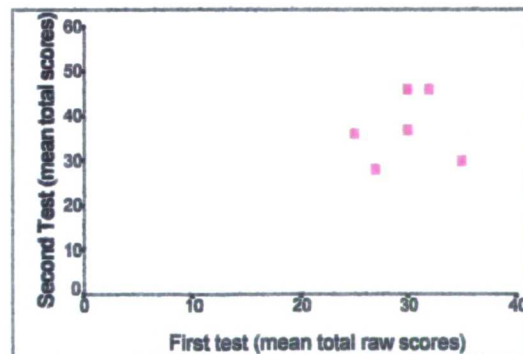


Figure 8.13 Test scores for child educators in the urban school.



No affect was found for age or years of schooling. (This was to be expected as tests were administered across the schools at the same time and therefore older pupils at second test would also have been older at the time of the first test which was already in the model.) Initial scrutiny of correlation coefficients had indicated a significant level of correlation between age and years of schooling and so they were run separately in the model. An interaction effect was again looked for but not found and so the benefit of being in the experimental group was constant across the full range of ability.

Table 8.6 Regression analysis of knowledge test scores from child educators

Analysis of variance	df	SS	MS	F	Signif. F
Regression	5	11158.7	2231.7	39.0	0.000
Residual	71	4059.1	57.2		
Total variance accounted for (R Square) = 73.3%					
standard error = 0.5					
Variables	B (partial regression coefficients)	s.e.	Beta (standardised regression coefficients)	T	Sig T
First test score	0.3	0.1	0.2	2.8	0.060
Benefit of being in experimental group	21.5	0.2	0.7	9.9	0.000
Benefit of being in control school 1	1.1	2.5	0.04	0.4	0.677
Age	0.4	0.1	0.03	0.5	0.656
Gender	2.7	0.1	0.1	1.4	0.157
(Constant)	5.9	8.2		0.7	0.080
Years of schooling	1.5	1.1	0.1	1.4	0.160

8.3.3 Analysis of test scores for each topic in the intervention programme: Data were then analysed to determine the effects of the intervention for each of the four topics taught to see where gains were arising. The analysis showed that the effects were fairly evenly distributed between topics for both the preschool data and the child educator data. Topic 1 (Playing with babies) made the greatest contribution (6.5 points for preschool children and 7.5 points for child educators). However the contribution of each topic was also highly significant (table 8.7). The contribution of the first test score was found to differ between topic, and between the preschool data and the child educator data. If the

intervention were to be repeated in other schools and the topics again found to contribute evenly to the benefit measured the generalizability of the approach would be indicated.

Table 8.7 Regression analysis of test scores for each topic in the intervention programme

Topic	Preschool children		Child educators	
	B	Sig. T	B	Sig. T
1. <u>Playing with babies:</u>				
Benefit of intervention	6.5	0.0000	7.5	0.0000
Effect of the first test score	0.4	0.0504	0.2	0.2346
2. <u>Children's stools and hygiene</u>				
Benefit of intervention	5.5	0.0000	5.5	0.0000
Effect of the first test score	0.3	0.0732	0.3	0.0013
3. <u>Preventing accidents at home</u>				
Benefit of intervention	4.7	0.0000	4.9	0.0000
Effect of first test score	0.7	0.0000	0.2	0.0216
4. <u>Caring for children with diarrhoea</u>				
Benefit of intervention	5.9	0.0000	4.4	0.0000
Effect of first test score	0.6	0.0039	0.1	0.1837

8.4 Analysis of data from the urban school and the settlement school for Basarwa children

As we saw in chapter 7 the field study was extended to explore the impact of the poor urban environment and of ethnicity on the effectiveness of children as health educators.

8.4.1 The urban school: Children from standard three who had joined the Little Teacher Programme together with the preschool children recruited to the programme were involved in the intervention. The standard 3 teacher was responsible for running the programme and, as she was the only teacher available for administering the knowledge test, she only had time to conduct the knowledge test with the first 8 child educators on the class register and with the preschoolers who had been paired with them for the intervention programme. Of these 8 pairs of children 5 preschool children (1 boy and 4 girls) and 6 child educators (2 boys and 4 girls) completed both first and second tests. Those who were lost to the study were absent for the second test.

The mean age of both the preschool children and the child educators was slightly higher than for the main experimental sample at 6.0 yrs. (SD 0.0) for preschooler children and at 10.3 yrs. (SD 1.6, range 8-13 yrs.) for child educators. The mean total test scores for both the preschool children and the child educators showed a gain of 7 points (from 29 to 36 for preschool children and from 30 to 37 for child educators). It is notable that the mean total first test score for the preschool children was considerably higher at 29 points than for their equivalents in the main experimental group from rural schools and there is no obvious explanation for this. Scatterplots of the test scores are presented in figures 8.12 and 8.13).

8.4.2 The settlement school for Basarwa children: In this school the test scores were judged to be unreliable. There was a major language barrier between teachers and pupils and the context of learning and schooling was strikingly different from that in the other schools involved in the study. The data collected have therefore been used to inform a separate case study which is presented in Chapter 10.

8.5 Discussion and conclusions

The results of the statistical analysis showed a significantly greater knowledge gain in the experimental group than in the control group. This was true both for child educators and for preschool children. Child educators appeared to have had a significant effect on the ability of preschool children to recall health messages and give account of expected health behaviours. It would also appear that performing the role of a health educator had resulted in a significant increase in their own ability to recall health messages. These findings are important because they support the assumptions underlying Child-to-Child which are that children are able to learn health messages and to pass them on to other children and also that they can benefit themselves from doing so.

However the significantly greater knowledge gain of the child educators was not exclusively the result of their role as health educators. It was the result of some combination of the following three contributing factors:

(i) the effect of the practice they gained as child educators using active learning methods to teach the new health topics to the preschool children. (We saw earlier in this chapter that this practice took place in 12 one-hour sessions over a period of four weeks followed, after a holiday break, by 9 one-hour sessions over three weeks.)

(ii) input from schoolteachers who revised the four new topics with the child educators in three one-hour sessions immediately after the school holiday and

(iii) support provided by schoolteachers who supervised the child educators whilst they were teaching the preschool children.

It must also be recognised that some of the knowledge gain of the child educators may be a gender effect due to a higher ability of girls than boys to perform the role of child educator and to benefit themselves from this role.

The possibility of this result being due to bias needs to be considered. Those in the experimental group may have been more highly motivated to learn about health as they (or, for preschoolers, their parents or guardians) had chosen to join the Little Teacher Programme. Children in the control group may have been equally motivated but they did not have that choice as the programme was not running in their schools. It is a pity that the child educators were not tested before the schoolteachers started to teach them the intervention topics to determine whether or not they started with a higher level of knowledge than the controls. Hawthorn effects arising from participation in the study and the presence of an 'outside' researcher may have increased levels of motivation to learn about the health topics but any such effect would have influenced both groups. Hawthorn effects may have increased the effectiveness of teaching of the intervention programme. In Botswana society girls are traditionally trained to be mothers and may be better at performing the teaching/caring/nurturing roles offered by the Little Teacher Programme. As more boys than girls were represented in the experimental group part of the knowledge gain of the experimental group may be due to a gender effect even though it was not found to be statistically significant.

Experience gained in the urban school was useful even though the small sample size and high attrition rate prevent inferences being drawn from the test data. The number of children lost to the study through absence suggested that children did not attend school regularly, especially preschool children. The teacher subsequently confirmed that this was a problem in the school.

From the statistical analysis of the knowledge test data it can be concluded that children can be effective as health educators in imparting knowledge when the Child-to-Child approach is used. Firm inferences cannot be drawn about population values from these data because the study was quasi-experimental and naturalistic and sample sizes were small. However the field experiment has provided a model which could usefully be repeated. If such a repeated experiment yielded similar results we would have grounds for concluding that these findings are substantive.

Chapter 9 FACTORS WHICH ENABLE OR INHIBIT THE EFFECTIVENESS OF CHILD EDUCATORS

Education planners and health planners are currently seeking to increase their understanding of the complex processes involved in successful implementation of health education programmes. During the field study data were collected to illuminate some of these processes in the context of the Little Teacher Programme in Botswana. Data from focus groups, observation, interviews and draw-and-write have been used to illuminate the way in which children are able to pass health messages to younger children and to their parents and to identify important factors which enable or inhibit the effectiveness of children as health educators.

9.1 The process by which child educators are able to pass health messages to preschool children

Classroom observation of Little Teacher sessions showed that child educators were using a variety of methods to teach the preschool children. We saw in chapter 5 that child educators sometimes adopt the role of a traditional didactic teacher and at other times involve preschoolers in a range of activity based methods (song, dance, role play drawing and painting). At the start of the intervention programme it was necessary for preschool children to be excluded from Little Teacher sessions whilst the child educators were being taught the new topics and the usual plan of the session was adjusted accordingly.

The following account of a typical session in the experimental school during the intervention draws on recorded interviews with the Child-to-Child teachers taking part and also on the diary kept by the Child-to-Child coordinator in the school. At the first stage of the intervention each session started with the six schoolteachers and the child educators singing and playing a game. The teacher whose topic was scheduled for that day then introduced her topic to the whole group using the learning materials she had prepared and checked children's knowledge with questions and answers. Some teachers

made and used posters in their presentation. The child educators then split up into six small groups each with one schoolteacher who used a variety of activity-based methods to reinforce the health messages which had just been presented. These methods included singing and dancing, writing, drawing, role-play and model making.

At the second stage of the intervention it was the turn of child educators to teach preschool children. The schoolteacher in charge of the session invited one of the child educators to come to the front of the group, to present the topic and to check the preschool children's knowledge through questions and answers. For one of the topics some of the child educators prepared and performed a drama for the preschool children and then asked questions to check that the messages had been received. When the group split up into the smaller groups each child educator took their preschool 'twin' with them to the small group and passed the messages to them using the same interactive methods as before. When the child educator thought their preschool child had learned the health message they took them to the school teacher supervising their group who asked the preschool child to repeat the messages. Finally the whole group came back together and the session was rounded off with more group singing and energetic games.

9.2 The process by which child educators are able to pass health messages to their parents (or guardians)

During the focus group discussions parents were asked to recall any health messages which their children had passed to them during the time of the intervention. Those who responded were then asked how the child had passed the message to them. Similarly during focus groups children were asked what messages they had passed to their parents and how had they managed to do this.

The majority of mothers in the experimental group (fifteen out of eighteen) recalled at least one of the intervention messages. In contrast none of the twelve parents in the comparison group was able to recall any health messages related to the intervention. Seven of the twelve children in the experimental group were able to recall intervention

messages which they claimed to have passed to their parents during the intervention whereas none of the six children involved in the control group recalled any messages related to the intervention. There was considerable agreement between the messages children claimed to have passed to parents and the messages parents reported receiving. This strongly suggests that children had been successful in passing health messages to their parents.

When parents were asked how they had learned these messages from their children their responses suggested that a variety of methods had been used. It would appear that mothers commonly asked their children what happened at school each day and were told about the new health topics being taught in the Little Teacher sessions. Children had also initiated conversations by asking their parents questions related to the new health topics.

Three parents reported that they frequently looked through work brought home by their children from school and had seen drawings made during the Little Teacher sessions which stimulated dialogue between parent and child. Some parents had heard their children singing new songs which incorporated the health messages and one parent learned the messages from a poem which her child had written. Parents had noticed their children making model animals and dolls for their baby brothers and sisters to play with (this was an activity recommended for topic 1 'Playing with babies'). One parent noted the importance of careful observation: 'we have to observe our children closely to see what they are learning'.

Data from children's focus groups supported statements made by their parents. Children reported learning songs, writing poems and making toys for their infant siblings during the intervention. Details of the toys which they had made were provided by five children whose total efforts amounted to three dolls, two wire cars, two balls, two tins with stones in them and three clay animals. Children were asked to draw pictures of the toys which they claimed to have made and during visits to the homes of two of these children both were able to show members of the research team the toys they had drawn.

9.3 Factors which enable or impede child educators passing messages to their parents

9.3.1 Social and cultural factors. Gender: During focus groups children were asked to which parent they usually passed health messages and why. Seventeen out of eighteen children replied that it was to their mother or other female guardian, usually grandmother or aunt. A boy explained: 'children usually pass messages to mothers because fathers are living away from home and out of the country'. This comment was endorsed by other children in the focus group and concurs with the reasons given by mothers for the absence of fathers. As we saw in chapter 7 mothers reported that many fathers worked in the mines in South Africa and on cattle stations. Those employed locally were mostly unwilling or unable to take time away from their jobs to participate in the study. Schoolteachers pointed out, however, that many children lived in single female-headed households where fathers refused to accept paternity for their children. It is therefore evident that the frequent absence of fathers is an important factor which inhibits children passing messages to them.

Children were also asked which parent they would usually pass messages to if both parents were at home. With one exception the girls named their mother but so did three of the boys. Girls reported feeling 'more comfortable' talking to their mother because they were more responsive: 'my mother responds quickly, my father is rough'. By contrast six boys (and one girl) preferred to talk to their father because he listened more attentively to them. A mother explained that 'daughters prefer a close company with their mothers, but boys prefer company with fathers particularly when they grow up' and this view was endorsed by the other five mothers in the focus group. Two mothers said girls were expected to 'stay around the home compound' and to do household chores and therefore spent more time with their mothers. Boys were allowed greater personal freedom. One father commented, when his son joined the Little Teacher Programme, that he 'thought it was weird for my son to be playing with his sister but now I see no harm in that and I allow it'.

As we saw in chapter 7, more girls than boys had self-selected for the Little Teacher Programme in the experimental school. This may indicate that the nurturing, caring role of the little teacher is more attractive to girls whose early socialization traditionally prepares them to provide child care. Furthermore data from focus groups strongly suggest that most of the intervention messages had been passed by girls to their mothers (or other female relative) in the home. This conclusion supports the findings of Zaveri in India (1991 p.208).

The acceptability of children as health educators: During the focus groups with parents a story illustrated with pictures was used to encourage role play to stimulate discussion, and to explore the acceptability of children as health educators. (This story is presented in chapter 7, p.154). It was clear from the discussion that parents placed great value in schooling as a means of educating the whole family. Eleven parents made statements which supported the role of children as educators within their families. For example, one father said 'we take our children to school because we value the messages they bring home' and another father said that a child 'brings light into his family by educating them on what he learns at school'. School children were clearly expected to start educating younger siblings: 'so they will grow up with some knowledge even before going to school'.

However, as we saw in chapter 5, children occupy a low position in the Batswana social hierarchy and knowledge is traditionally passed from older to younger. Consequently the contentious issue is whether parents are willing to accept that they also can learn from their children. During a focus group the acceptability of children as health educators was challenged by a mother (in the control group): 'I would be shocked if my child told me how long I should breastfeed a baby for because I know the period for which I should breastfeed my child'. The effectiveness of children as health educators would clearly be inhibited by direct confrontation with the beliefs and values of their parents and we saw in chapter 4 that Child-to-Child recognised from the start that children should never be placed in such a position. These data suggest that children can pass health messages to their parents but that some messages are easier than others for a child to pass.

The level of respect shown by children for their elders: This was identified as factor which could impede the effectiveness of children as health educators. An older father in a control school commented 'I would like my child, wherever he is, to practice good manners, not only towards me, his parent, but to all the other elderly people in the community as they are his parents as well'. (This supports the view expressed in chapter 5 that early socialisation of the child involves them learning to respect all adults.) Another father recalled that as a child he was not allowed to initiate a conversation with his parents but had to wait until they asked him to speak, similarly he could only respond when his parents asked him to. The six fathers in this focus group were in agreement that many parents still held the traditional view that it was disrespectful for a child to initiate a conversation with an older person or to ask too many questions. Three fathers reported that their younger children were too shy to talk to them: 'my younger children do not talk to me as my elder children do'. This reluctance could impede the effectiveness of young children as health educators. However as we saw in chapter 5 (p.102), family relationships in Botswana are rapidly changing. Two younger fathers in the group were confident that their own children felt free to start discussions and ask them questions.

Availability of time for children to communicate health messages within the family unit: When children in the experimental group were asked what difficulties they had experienced in passing the intervention messages to their parents the main problem identified was that their parents were too busy to listen to them. One child clearly felt that his parents were not interested: 'We show them our school books but they never care for what we are doing'. It is recognised that school children, especially girls, carry a heavy burden of household tasks and teachers claimed that children did not have time for homework. Three mothers (in the experimental group) acknowledged that in some families this was a problem, arguing that children should finish their school work before starting household tasks. These comments stimulated a lively debate about the realities of life within Botswana households. The discussion centred on the heavy workloads of women and children in Botswana families and indicated that lack of time available for children to be with parents, to gain their parents' attention, to pass on health messages and to undertake activities could be an important factor inhibiting the effectiveness of children

as health educators.

9.3.2 School-community links: Focus groups in the experimental school identified the school's strong parent-teacher association (PTA) as an important factor in enabling children to be effective health educators. In this school the head teacher was very supportive of the Little Teacher Programme. She worked closely with the Child-to-Child teacher who coordinated the Programme and she put the Little Teacher Programme on the agenda of each PTA meeting to keep parents informed and involved. This strategy appeared to be successful because the mothers interviewed had a good understanding of the programme and recalled that at the last PTA meeting the Head Teacher had informed them that the school was to take part in a study. One mother stressed that the programme was helpful to the community because it supported the traditional role of 'children helping children'. Mothers also gave details of other activities in which they were involved in the school and it was notable that during school visits parents were always to be observed in and around the school.

The good cooperation of parents in the field study was further evidence of the strong link between this school and the community. Parents and teachers both felt the Little Teacher Programme had helped to strengthen this link over the years. Parents were well represented at the initial exploratory meeting held in the school to gain support for the field study (see appendix 3 p.A9). They also came to receive feedback on the findings and were active participants in the discussions. Two of the six Child-to-Child teachers involved in the intervention had their own children at the school and this also helped reinforce school-community links. In the individual interviews Child-to-Child teachers all identified the good relationship they had with the community as a key factor in the success of their programme.

9.3.3 The physical environment: Another factor which could influence the effectiveness of children as health educators was found to be the physical home environment. The photo-record in appendix 2 (pp.A14-A15) shows how rapid development has resulted in some families living in modern bungalows with 'all mod cons'

whilst their neighbours still live in mud rondavels without latrines or running water. One family visited was living in a house where building had ceased before completion. Only one room had a ceiling, there was no water, electricity or latrine and the unfenced compound appeared to be a rubbish dump. Health messages would need to take into account the realities of life for children and their families living under such conditions as these.

9.3.4 The opportunity cost involved in communicating the message: An attempt was made in the parental focus groups to identify the types of health messages which children would find easier to pass to their parents and those which they would find more difficult. (Unfortunately little data on this are available from children's focus groups.) Parents were asked what their reaction would be to a number of different messages. Messages about hygiene, child growth and development and nutrition were considered to be equally acceptable although, as previously mentioned, messages which could imply lack of respect for parental experience would be rejected. Messages from children which carried resource implications, such as money to buy soap for hand washing, might engender displeasure: 'sometimes parents are without money and so when children ask for money parents grow sour against them'. In response to this comment a mother replied that 'the sourness of parents is overcome by the persistence of children'.

A message included in the knowledge test (children's stools are more dangerous than adults' stools) was used to explore the opportunity cost to both children and parents of passing sensitive messages. Children in the experimental focus group reported that this message was difficult for them to pass to their parents and interview data from schoolteachers revealed that it was considered most impolite in Batswana society for children to talk about the stools of adults. Despite this taboo teachers were convinced that children had been able to pass this message to their parents.

The emotional cost of passing messages about sexual health (including HIV and AIDS) was also explored in parental focus groups. Most parents (6 out of 8) felt that it was primarily the responsibility of the school to teach children about sexual health as many

children were living with relatives and not their parents for some part of the year. Three mothers argued that young girls must be taught about adolescent body changes at school so that they should be prepared in advance for menstruation and should understand what was happening to them and know how to look after themselves.

Mothers were especially concerned about the emergence of new health hazards such as HIV and AIDS on the wellbeing of their children and wanted the school to inform children about these hazards: 'I want my children to be taught everything because things have now changed. Today's world is not like in the olden days'. A mother recalled that as a young girl her own mother had told her 'babies are fetched from the stream'. She felt it was important for her own children to receive accurate information so they could 'protect themselves and have a positive attitude to life'.

A dialogue between two fathers who were twenty years apart in age revealed that different generations of parents could hold widely differing views about children receiving education on HIV and AIDS:

I do not suppose that children attending a primary school have any idea of what is meant by AIDS. I do not think they understand the subject. However I would talk to my 20 year old child about AIDS. (older father)

I do not think it is a good idea to wait until a child is at a certain age. Our children grow faster than we think. By the time you decide to talk to your child you may be late. I suggest we start talking to our children at an early age such as 10 years. (younger father.)

It was also acknowledged that due to rapid educational expansion 'children nowadays often know more than their parents'. Some parents said this made them reluctant to advise children on sexual behaviour but one mother argued against such reticence: 'as a parent you have to talk to them so that they know what is right or wrong from the parents' point of view'. Fathers also felt that nowadays it was necessary for parents to discuss sexual health with their children: 'We have to talk and be free with our children'. However parents are not always comfortable about discussing sexual health with children. In one focus group all six mothers acknowledged that they found it hard to discuss sensitive issues with their children, especially with the first born and with their older boys.

One mother commented that ‘generally parents lack openness when they talk (about sensitive issues) with their children’ and another said, ‘I would prefer that someone else should explain to my children the problems they are likely to encounter in their youth because I am shy’. There was general agreement that parents and teachers needed to support each other to promote good sexual health. A mother commented: ‘some parents would like to share ideas with their children but are scared of them, they need some back up from teachers’.

Parents frequently call on members of the extended family, usually an aunt, uncle or grandparent of the same sex as the child, to pass sensitive messages to their children. (This was reported by two mothers, a father and a child.) A mother explained that ‘an older daughter can replace the aunt (or uncle) at least for the young children and older girls’. However three parents strongly objected to messages being sent from parents to their children through relatives. One mother stressed that parents should be able to talk directly to their children ‘because sisters or grandmother might be jealous of you and so give your children wrong advice’. Another mother remarked that ‘even if they are boys you should talk to them yourself. If you cannot talk to them you can write to them’.

9.3.5 Health perceptions and practices. Parental perceptions: Data from focus groups revealed that most parents now hold a mixture of traditional and modern (biomedical) perceptions about health and illness. This finding corroborates the work of Staugard (1989) and Horam (1991). Discussion focused on the causation and treatment of diarrhoeal diseases defined as ‘loose stools’ (*letsholol* in Setswana) which was reported to be caused by a combination of germs, bad breastmilk and the soft spot on a baby’s head (fontanelle). Diarrhoea was known to be spread by poor hygiene practices such as ‘lack of cleaning’ or ‘dirty water’ and to be associated with poor nutritional status in children. Mothers claimed that when their children had diarrhoea they either gave them infusions prepared by a herbalist or a drink of home-made ORS (oral rehydration solution) to prevent the body losing water. However mothers reported that other measures were needed to deal with bad (unclean) breastmilk and the type of diarrhoea believed to be caused by the soft spot.

If a mother was ill her breastmilk was considered to be unclean. Such illness could be caused by a mother 'walking for a long distance in the sun'. In the event of such illness it was reported that the mother 'must reduce the hot milk in her breast before breastfeeding the child'. Mothers claimed that if the baby's soft spot sunk in the child's condition was more serious than diarrhoea caused by germs or bad breastmilk. Four parents said this was the main cause of diarrhoea (nobody disagreed) and that it caused 'continuous' diarrhoea (*phogwana* in Setswana). Parents were agreed that only a traditional healer could treat *phogwana*: 'you take the child to the traditional doctor who makes a cross on the fontanelle'.

Parents were asked to recall what their grandparents had believed to be the cause of diarrhoea. Data showed a complex web of beliefs linking the cause of diarrhoea to traditional codes of practice around sexuality (sexual intercourse, pregnancy, miscarriage) and feeding practices. Reasons given for a child who was being breastfed getting diarrhoea included: The mother having sexual intercourse with a man who was not the father of the child; the woman helping the mother during her confinement having sexual intercourse and then eating from the same pot or even cooking in the same place as the mother; a pregnant woman eating from the same dish as the mother; the father eating from the same pot as the mother or even entering the house where the mother was.

Children's perceptions about health: Data were collected using the draw-and-write method as described in chapter 6. A sample of 100 children in the study schools aged nine and ten years were asked to draw and write in response to three questions: What makes you healthy? What makes you unhealthy? What do most people die from? Each response consisted of a picture and a written comment. These were analysed together to identify major categories and sub-categories before individual responses were classified. The pictures were factual rather than symbolic and no attempt was made to use them projectively. There were no substantive differences in the data by gender or amongst the urban and rural Batswana schools and in most cases their responses have been reported together.

Figure 9.1 Children's perceptions about what makes them unhealthy

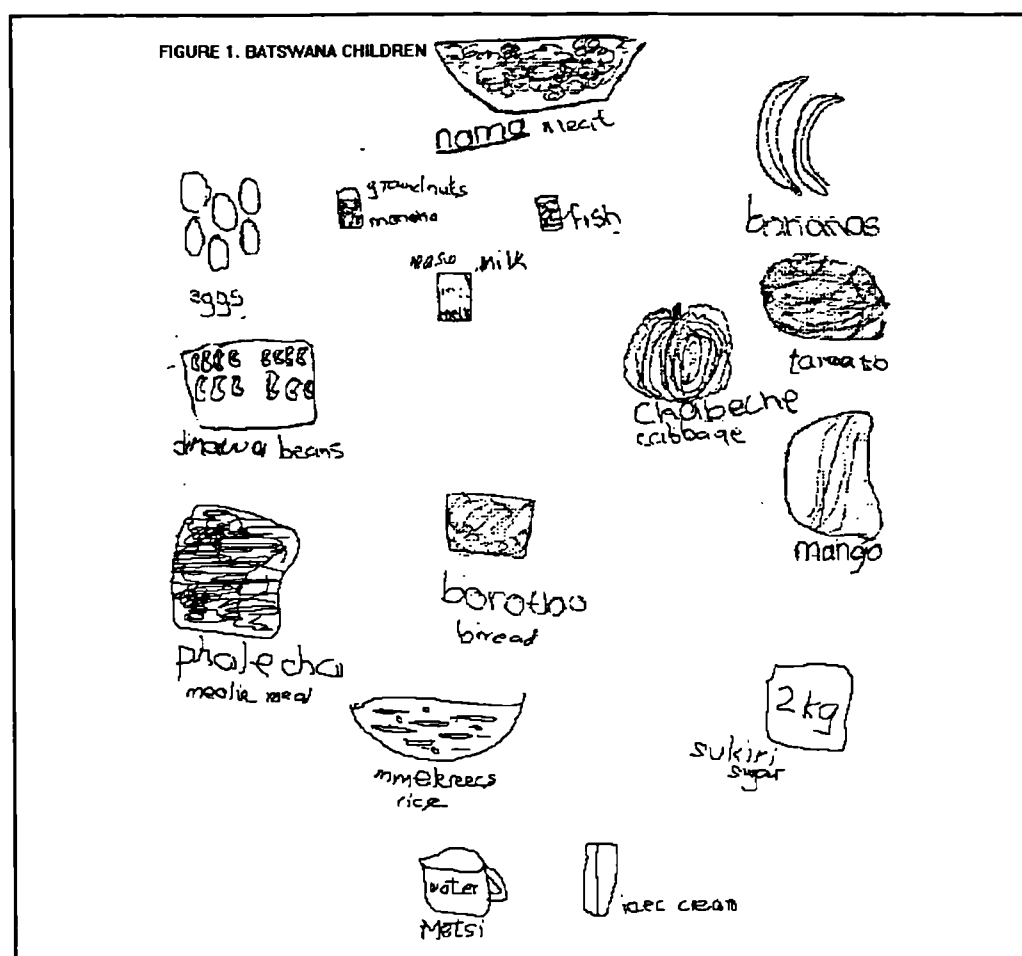
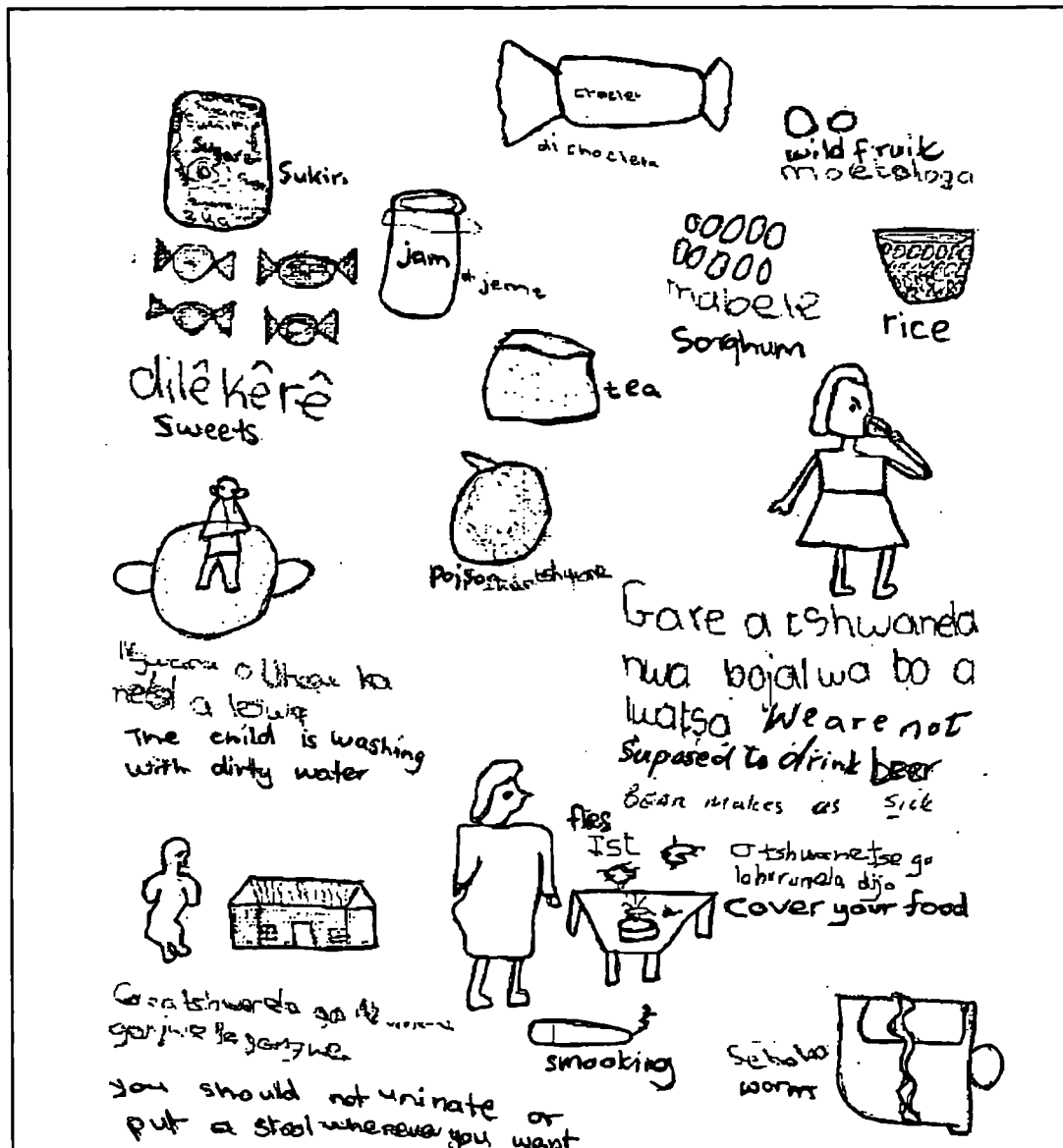


Table 9.2 Batswana children's perceptions about what makes them unhealthy

Category	% of children giving this category at least once (n=100)
<u>Unhealthy food and drink</u>	
sugar or sweets	66
fruits and vegetables	32
staple foods	26
wild fruits	8
alcohol	7
<u>Poor hygiene</u> (dirty food or water, unhygienic disposal of faeces)	10
<u>Traditional medicine</u>	7
<u>Unhealthy habits</u> (smoking and drinking alcohol)	3
<u>Infectious disease</u> (worms)	1
Other (tea, salt, caterpillars, tomato sauce, uncooked eggs)	5

Figure 9.2 Batswana children's perceptions about what makes them unhealthy



What makes most people die? There was an increased response rate for this question. Seven categories were identified - diseases, violence, accidents, wild animals, suicide, unhealthy habits and witchcraft. Infectious diseases (recorded by 90% of girls but only 44% of boys) included AIDS, tuberculosis, measles, mumps, polio, cholera, diarrhoea, scabies, diphtheria, chicken pox, malaria, leprosy and 'bacteria from water'. Non-infectious diseases recorded were heart trouble, eye trouble, 'aches and pains'. Suicide was recorded by 21 children (31% of girls, 7% of boys). (Table 9.3 and figures 9.3a, 9.3b and 9.3c)

Table 9.3 Batswana children's perceptions about what most people die from (n=100)

<u>Category</u>	<u>% of children giving this response at least once</u>
Infectious diseases	91
Non-infectious diseases	73
Violence: fighting	100
: poisoning	17
Accidents: traffic accidents,	68
other (fire, drowning)	21
Wild animals	49
Suicide	21
Unhealthy habits - drinking alcohol, smoking	10
Witchcraft	3

Figure 9.3a Batswana children's perceptions about what most people die from



Figure 9.3b Batswana children's perceptions about what most people die from

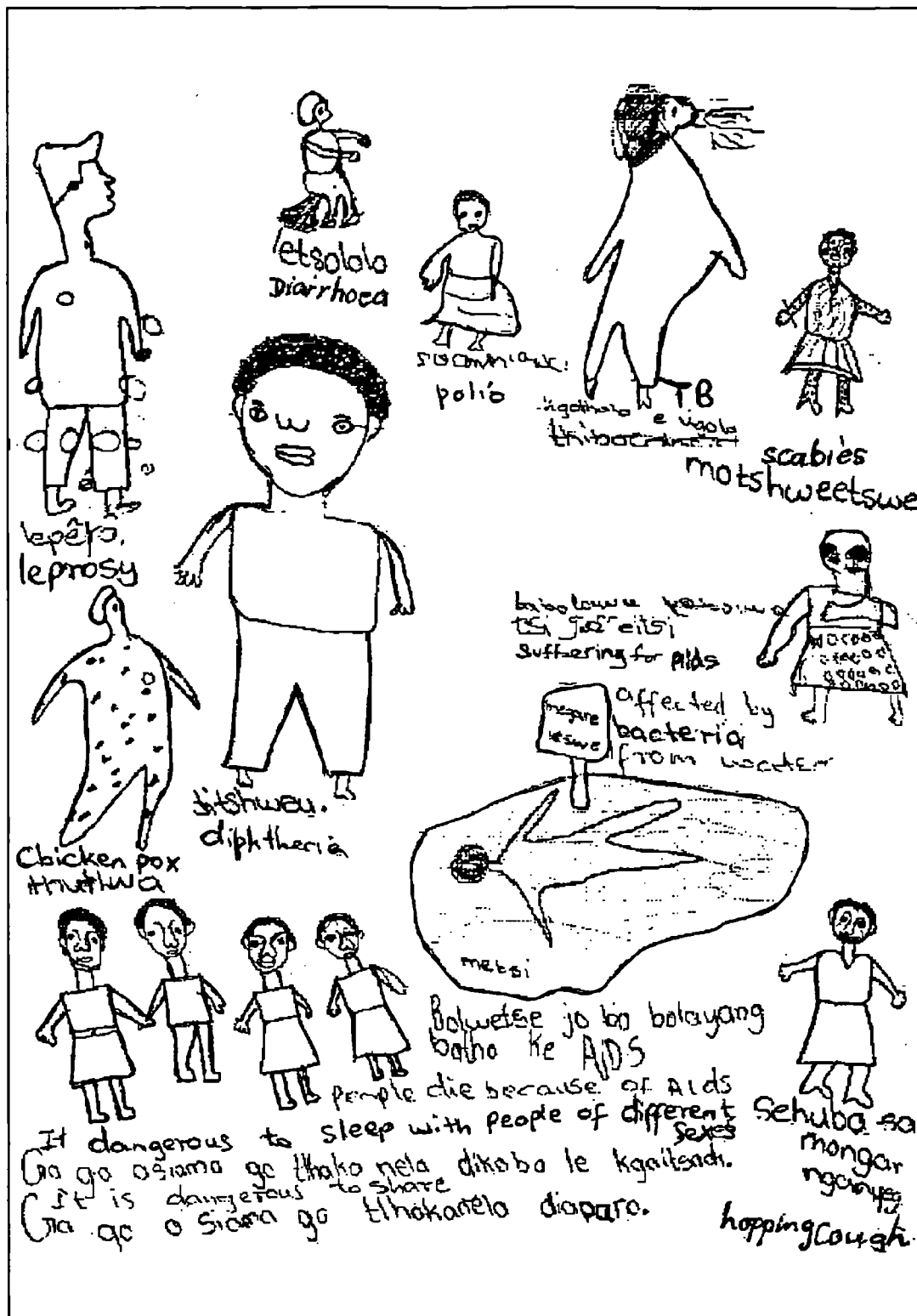
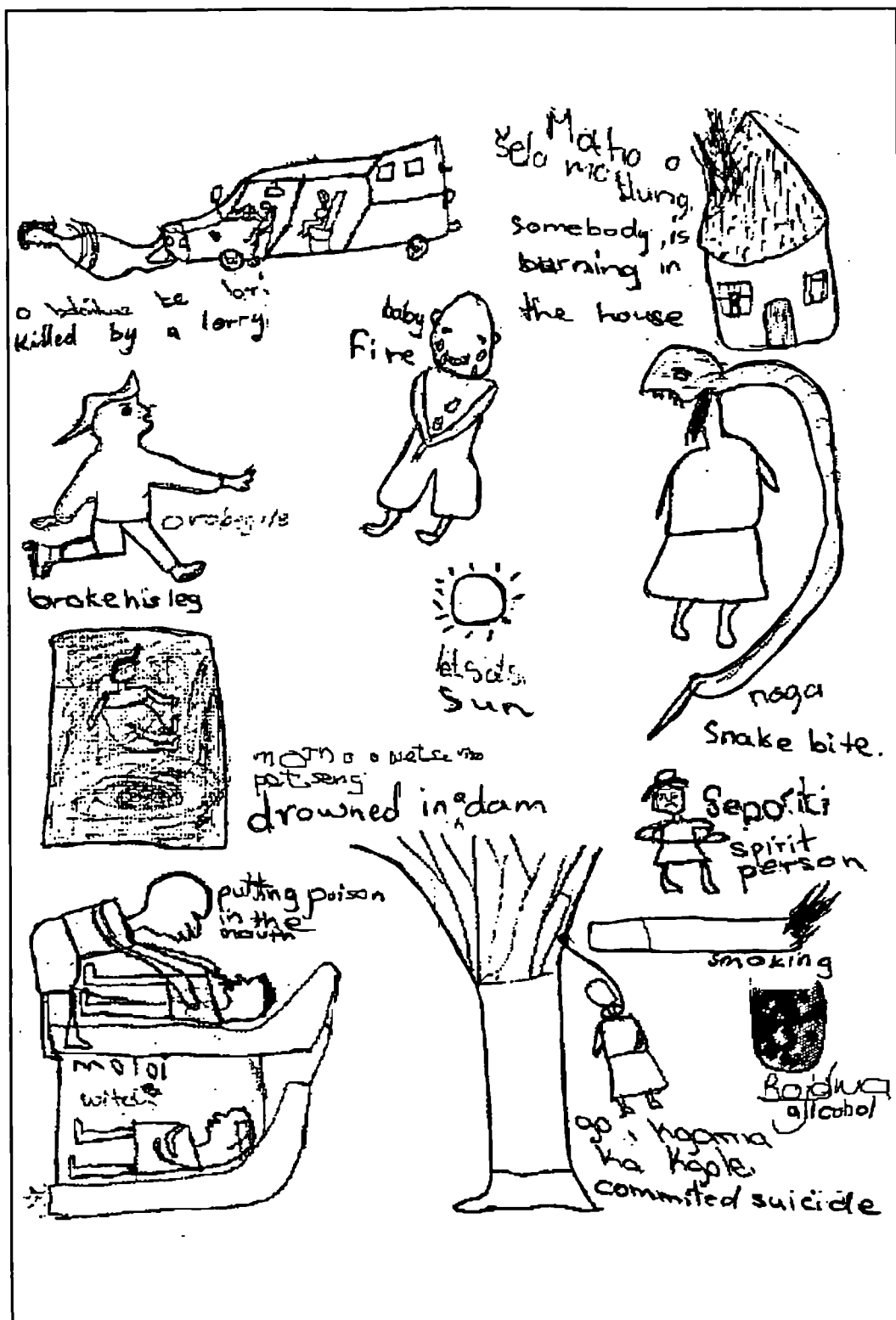


Figure 9.3c Batswana children's perceptions about what most people die from



Discussion of the draw-and-write data: These data suggest that the health perceptions of children are informed by a mixture of traditional and biomedical knowledge. They also support the view expressed in chapter 5 that belief in the power of witches (*baloi*) is very deeply rooted in the culture and that new ideas and practices are incorporated alongside traditional ones. It is important to know that young children are still learning about the traditional world view of the Batswana and to recognise that barriers may exist to children accepting new ideas and practices.

The draw-and-write method is novel and we need to consider the problems of its use with children. In the field study there was the ethical issue of whether it was right to involve children in an exercise in which effectively they had little choice but to take part. Although their consent was asked the context of the classroom made it very difficult for a child to refuse. Also it was not really possible to gauge the full extent of any anxieties raised by the research even though the researcher and the facilitator made every effort to talk through the exercise with the children at the end of the session and the teachers who felt they knew the children well thought they all benefitted from the session.

There were a number of concerns about the validity and reliability of the drawings and writing. Most children appeared to find it difficult to think of things they did (or could do) to make themselves unhealthy and the researcher observed that most children quickly drew pictures of sugar or sweets and then paused. Some children then continued and filled up the page with drawings of foodstuffs such as fruits, vegetables and staples. This was puzzling as these children had previously depicted the same foodstuffs in response to the question about what made them healthy.

In two of the classrooms overcrowding was a problem. Although every effort was made to minimise the possibility of children picking up ideas from each other it is possible that the high response rates for the category of foodstuffs reflected shared ideas.

However there were benefits from draw-and-write as well as problems. A major benefit was the enthusiasm the method engendered amongst the teachers. They felt that it had

provided them with new insight into the children's perceptions of health and were excited and surprised by the richness of the children's responses. They also felt that this was a method which they could use themselves to improve the quality of their teaching.

9.4 Summary

This chapter has aimed to increase understanding of the social, cultural and environmental context in which the intervention was implemented. Data from focus groups, interviews, observation and draw-and write have been analysed to illuminate the process by which children are able to pass messages to preschool children and to their own parents. The data suggest that factors which are important for children to be effective health educators include efforts by the school to raise the status of children and their acceptability as educators in the eyes of their parents. A strong link is needed between the school and the community through the PTA to support teachers and parents in their efforts to develop a dialogue about health with children. Strong leadership is essential from the head teacher and support for the Child-to-Child coordinator in the school. It is important that children approach adults in a respectful manner. Time and mental space must be made available for parents and children to come together and communicate. An adequate standard of housing is necessary. Health messages need to be informed by a detailed knowledge of local health beliefs and practices and of the social and environmental constraints to behaviour change. It is important that the gender bias which facilitates the passage of messages from girls to their mothers is recognised.

PART V A CASE STUDY

Chapter 10 LEARNING AND SCHOOLING FOR BASARWA (BUSHMEN) CHILDREN

10.1 Introduction

When a young girl dies, the rain takes her up and carries her to the water.
She becomes a flower, a beautiful flower, that lives again in the water.
(Basarwa myth recorded by Markowitz, undated.)

The field study was extended to include an isolated settlement school in Ghanzi District, western Botswana. This school offered the opportunity to examine the influence of ethnicity on the effectiveness of the intervention programme and to explore the context of learning and schooling for Basarwa children. The experience gained in this school is presented as a case study because it was strikingly different from that gained in the other study schools. It illuminated the difficulties faced by Basarwa children when they enter school and showed how the Basarwa culture is being eroded through interaction with the formal education system.

The first part of this chapter provides background on the situation of the Basarwa in Ghanzi District. It identifies strategies through which the Basarwa may attain greater cultural equity and self-determination and examines traditional patterns of early childhood socialization and learning.

The second part of the chapter presents a study of learning and schooling for Basarwa children drawing on experience gained from the intervention. This study identifies barriers to educational access and to learning in the school where Basarwa children are disadvantaged socially, linguistically and culturally. Finally the implications arising from the experience gained in the school are considered and attention given to the potential of the Child-to-Child approach for the learning of young Basarwa children.

10.2 Background to the Basarwa in Ghanzi District

There is a substantial body of anthropological and ethnographical literature on the Bushmen which includes extensive and scholarly texts dating back to the late 1860's. This literature yields a wealth of detail on their history, inter-relationships, foraging adaptations, social organization and culture, lending substance to the view that in their traditional lifestyle they represent an African ideal reminiscent of Rousseau's notion of the 'noble savage' (1762). Barnard's (1992) masterly 'Comparative Ethnography of the Khosian Peoples' provides a detailed overview of the Bushmen and Hottentots in Southern Africa and its extensive bibliography facilitates access to the classical literature. This text also updates the earlier seminal work of Schapera (1930). Other important contributions to the literature have been made by Silberbauer (1981), Marshall (1976), Lee and De Vore (1976) and Lee (1979).

The settlement school chosen for the field study was located in Ghanzi District in Western Botswana where most Basarwa are Nharo or G/wi. They are physically distinct from the Batswana being smaller and slighter with light yellowish skin, hair in small tufts and slightly mongoloid features (see photograph 9.1 in appendix 1). Although each of these groups has its own language they all belong to the cluster of languages known as Tshu-Khwe (Hitchcock, 1987 p.227). There is a general consensus in the literature that within this language cluster the different groups can understand enough of each other's languages to be able to communicate. The Nharo are indigenous to Ghanzi District but have been squatters or labourers since the Boers and the Batswana moved into the area at the end of the last century and set up cattle farms. The G/wi are indigenous to the Central Kalahari but after their lands were designated an official game reserve the Government started to move them into settlements around the edge of the reserve. The Basarwa in most of the settlements have not yet settled to peasant farming and are still highly mobile.

10.2.1 Prolonged subjugation: Serious questions have recently been raised concerning Basarwa human rights. Although the Basarwa are generally recognized as the indigenous peoples of Botswana, they lack legal rights to land ownership and legal access to water

sources. The experience of indigenous peoples' struggles in many parts of the world (Canada, United States, Sweden, Australia) has clearly shown that the most important single factor in their survival is the preservation of their land base. Lee and Devore (1976) confirm that 'without land on which to maintain their community-wide social and economic institutions, these people are rapidly and tragically absorbed into the poorest economic stratum' (p.21). This is also the experience of the Basarwa in Botswana.

The Basarwa lack the right even to choose their own name. They are known by a number of names (Bushman, San, Basarwa) none of which are meaningful to the people themselves but are drawn from the languages of outsiders. The Dutch first used the term 'Bushmen' (Lee 1979 p.9) and this name is now being positively embraced by the people themselves because it most accurately reflects their origins as hunters and gatherers and underscores their right to remain in their traditional hunting lands. Some Basarwa call themselves *N/oakhwe* ('red people') as a means of differentiating themselves from the Batswana ('black people') and the Boars ('white people'). In this thesis the name Basarwa is used to distinguish the Bushmen in Botswana from those in neighbouring countries. It is to be hoped that one term may eventually emerge which is acceptable to all parties.

The prolonged marginalization and subjugation of the Basarwa is recognised as a major barrier to their development and they are becoming increasingly impoverished (Mogwe, 1992). A master-serf relationship is still reflected in the attitude of the Ghanzi cattle-owners towards Basarwa labourers and in the attitude of the Basarwa to the possibility of participating in their own development (Campbell, Main & Associates 1991). Barnard (1993) contends, however, that because they are the majority population in the area the Basarwa labourers in Ghanzi have retained much of their traditional culture.

The Botswana government refuses to acknowledge Basarwa as indigenous peoples. This refusal reflects a long-standing Batswana policy of assimilating 'subject' peoples into the clan and ward system of the various tribes and provides a good illustration of the passive role in which the Basarwa find themselves in relation to decisions concerning their rights. It shows how the government has discounted any claim by the Baswara, on grounds of

natural law, to 'aboriginal possession' and reflects its determination to achieve a unified state so as to avoid the tribal differences which have caused much instability in other African countries.

The government uses the name Remote Area Dwellers (RADs) to group the Basarwa together with the few Batswana who share their poor economic situation and location but are culturally distinct. This policy has been seen as a political strategy to acculturate the Basarwa and more easily assimilate them into Batswana society (Saugestad 1993). The use of the term RAD illustrates current disregard for the view point of the Basarwa. The Setswana translation of the term Remote Area Dwellers ('*ba tengyanateng*') as 'a thing which is deep inside the earth' is considered to be insulting and raises a number of disturbing questions in the minds of the Basarwa: 'Has their soil covered ours? Does it mean that we are dead?'. The Basarwa argue that 'if by "*tengyanateng*" it is meant that we are far away from Gaborone then Gaborone is also far away from us. Gaborone is also "*tengyanateng*" (Mogwe 1992 p.4)'.

Until recently the Basarwa have been politically silent but there is a general consensus in the literature that their continued existence as a distinct cultural group will largely depend on their ability to mobilise themselves and to argue from a common platform for increased self-determination (Mogalakwe 1986; Campbell, Main & Associates 1991; Barnard 1993). Their lack of formal leaders and their desire to avoid conflict have been important contributing factors in the progressive disregard of their human rights. The essentially harmonious and egalitarian character of their culture is illustrated by Barnard (1992):

Within each Bushman group the largest social unit is the band. Bands practice a type of 'primitive communism' which aims to promote the survival of the band. Bands are both open and egalitarian communities in which neither men nor women are exploited and among which members may freely migrate. Within each band Bushmen live in family groups which are usually inter-related. Most importantly, all Bushmen groups highly value the establishment and maintenance of harmonious relationships in their social order. The politico-economic framework involves political action being taken by consensus, a system of universal kinship with social equality, individual and collective ownership of different types of property. (p. 44)

10.2.2 Traditional patterns of learning and teaching: There is a rich cultural tradition of play. Adults teach young children, using traditional myths, legends, games, songs and dances and children learn within the family unit and the playgroup by watching and doing (Barnard 1993, Silberbauer 1981). The playgroup consists of children from about three years to six years and much of the children's play is imitation of the elders' daily activity. The knowledge, training and socialization of the child in the playgroup thereby reinforces what is received from the parents in the household. Basarwa are well known both for their tolerant attitude towards their children and for the freedom enjoyed in childhood. The egalitarian nature of Basarwa society fosters cooperation rather than competition between the sexes and the age groups and children do not play team games in which an individual or group wins. High value is accorded to harmony and complementarity within the band and informal singing and dancing make an important contribution to their social and spiritual well-being (Marshall 1976; Barnard 1993). This contrasts with the upbringing of Batswana children in which the boys and girls are trained separately and in which, as we saw in chapter 5, the children's early socialisation reflects the strongly patriarchal nature of their social organization.

Parental authority is kindly and reasonable (see Silberbauer 1981). Neither parent is especially dominant. Children learn to respect and obey their parents. Anything more than symbolic punishment of children for disobedience is considered inappropriate and unacceptable. Older siblings care for and teach younger siblings both within the family unit and playgroup. Siblings of the same sex enjoy a close relationship of trust and affection. Girls learn many of their roles from their mothers and consequently spend more time with them than do boys. Brothers develop more emotional independence in the playgroup because fathers are often absent hunting or on other trips. Unlike most developing societies in which children and youth make a substantial contribution to the economy, Basarwa children are not expected to take any serious responsibility for hunting or gathering before their mid-teens.

Adults also teach children about the nature of the Basarwa universe. The Basarwa believe that the universe is inhabited by a greater god and a lesser god, by their wives and children

(humans and other large mammals) and by the spirits of the dead. The will of the greater god is paramount and all creatures have to fend for themselves within the constraints he has ordained. Although the gods are believed to be the direct cause of illness in some cases, most illness is seen as a random occurrence in which several factors, some beyond human knowledge, combine in a particular pattern of misfortune. Because there is no notion of sorcery it is not seen as a cause of ill health in contrast to traditional Batswana belief systems. However medicine dances are important community rituals through which sickness is removed from the body. Basarwa are afraid of the spirits of the dead because they are held to visit the living. There is no sense of lineage and, unlike the Batswana, the Basarwa do not identify closely with their ancestors. According to Barnard (1993) Basarwa believe that tilling the soil angers the greater god.

10.2.3 Directions of change: Researchers have noted a gradual breakdown of traditional Basarwa social organization. Barnard (1993 p.53) reports that amongst those who have become relatively sedentary children travel further from their homes and adults spend less time with their children. When seasonal migration ceases women tend to stay at home more while men are more likely to stay away from home, even if only looking after herds nearby. Mogalakwe (1986) found that Ghanzi farmers increasingly used child labour on the cattle-posts. These social changes are indicative of the gradual assimilation of Basarwa into the patriarchal Batswana society where children have domestic responsibilities from an earlier age.

New ideas about health are being assimilated into traditional belief systems as a result of interaction with western medicine provided by Government health posts. The use of these health posts is low and Basarwa complain that health staff cannot speak Sesarwa and do not treat them respectfully (Mogwe 1992). Traditional herbal medicines are preferred but are in short supply because roots and herbs cannot be collected away from their traditional lands. It is also illegal to practice traditional healing in Botswana without being officially certificated. Few Basarwa possess these certificates. Excessive alcohol intake is a recognized health problem which according to Mogwe (1992) has its roots in poverty and marginalization.

The growth of an 'indigenous' movement within Botswana is beginning to cause social and political change. The Basarwa are sensing an increased capacity for self-determination. Saugestad (1993) argues that once indigenous organizations have been established and their leaders are able to negotiate with the government, far from threatening national unity and political stability, these organizations will contribute to the democratic process and actually make policy formulation and implementation easier.

Schooling has also been used as a tool to break down the traditional Basarwa culture. The Government introduced free primary and secondary education in 1988 and there are now primary day schools in some of the Ghanzi settlements but no boarding facilities. Parents have difficulty feeding and caring for their children at the settlement schools because the land is not able to support the size of the resident population unless they make the unwelcome transition to subsistence farming. Parents therefore rely on being mobile in order to subsist. Lee (1984) found parents feared their children might be beaten or neglected if left with relatives. Although Government transport takes children to their homes for the school vacations Basarwa children still lack effective access to schooling. This is reflected in low recruitment rates and high drop out rates in settlement schools. Few Basarwa children reach secondary school.

Lack of parental trust in schooling is a major barrier to enrolment. Parents believe schooling is breaking down their social traditions. They also complain of insufficient money to buy the obligatory school uniforms and soap for washing them, lack of accommodation at schools, and transport difficulties between home and school (Campbell, Main & Associates 1991; Mogalakwe 1986). Parents fear the occurrence of teenage pregnancies at the schools and believe Basswana men take advantage of their daughters because they do not respect Basarwa people. Children also drop out of school because corporal punishment is frequently used for reasons which they deem to be unjustified, such as for not knowing Setswana. Basarwa children are greatly disadvantaged because the language of instruction in schools is Setswana and young children do not know this language (Mogwe 1992).

10.3 The field study in the settlement school

Access to the school was problematic because of political sensitivities around research on the Basarwa at the time of the fieldwork in 1992. It was also difficult to reach the school because of its isolated situation and the need to traverse long distances through Kalahari sands. On the first visit a 'round trip' from Gaborone, allowing two working days in the school, took one week. Official permission for the study was obtained from the Office of the President in Gaborone but access had to be further negotiated locally through the Principal Education Officer responsible for the settlement school. The researcher was required to argue her case before a full sitting of the district council before permission was finally given to proceed to the school. This process illustrates the strong tradition of verbal debate in the Batswana culture which, as we saw in chapter 5, centres around *kgotla* meetings which are an important village structure for decision making and conflict resolution.

The settlement school involved in the study was situated in Ghanzi District, western Botswana, where about forty mud or block houses, a shop and a health facility were clustered together in the otherwise seemingly featureless semi-desert. (A photo-record is provided in appendix 2 (p.A18). A borehole provided water but there was no electricity. All the school teachers were Batswana, deployed to the school by the Ministry of Education, and for those unaccompanied by their families the hardship of separation was compounded by isolation and poor infrastructure. The social and economic disparity between Basarwa and Batswana was easily observed in the different standards of clothing and housing between children and teachers. The school teacher lived in block-built bungalows, the Basarwa lived in mud rondavels.

At the time of the study in 1992, 91 children were registered in the school. There were also 12 preschool children attending for the Little Teacher Programme. The deputy head confirmed that the school population was highly mobile, the more so since the Government's drought relief feeding programme had finished. Some school children lived with their parents in the settlement but many were staying with relatives during term time

and using the Government transport to travel between school and home for the vacations.

A wall chart in the head teacher's office displayed a separate record of RAD children (shown in appendix 3 p.A19). As only 15 children in the school were not RADs and all of these had parents teaching in the school or working in the health facility, this public record seemed unnecessarily divisive. The wall chart also revealed a dramatic reduction in enrolment in the higher standards especially for boys. This disparity indicated that girls were achieving greater access to the benefits of schooling than boys and endorsed the findings of other researchers that women are grasping educational opportunities more than men (Campbell, Main & Associates 1991). Greater educational access for women has important implications for the survival of the Basarwa because as we saw in chapter 3 there is much evidence to show that infant mortality rates are closely related to maternal education. However women may find it more difficult than men to enter the political arena and negotiate for the rights of their people to greater self-determination within the strongly patriarchal Batswana society.

10.3.1 The intervention: The school teacher responsible for the Little Teacher Programme in the settlement school introduced the four new health topics into the curriculum for primary school children. She then supervised them whilst they passed on these messages to the preschool children using active teaching methods. The preschool children were tested before and after the intervention to assess learning and the primary school children were tested before and after they taught the preschool children to assess how much they had learned from performing their role as child educators. The teaching and testing were conducted in the official medium of instruction, Setswana. None of the teachers could speak the children's mother-tongue, Sesarwa. (The photo-record in appendix 2 (pp.20-21) shows a training session lead by the researcher to train school teachers to administer the knowledge test. The photo-record also shows the knowledge test in progress and a teacher administering the test to a preschool child.)

During the testing the field team rapidly became aware of a serious language barrier between school teachers and children. Preschool children appeared to have very little

understanding of Setswana and primary school children lacked sufficient language skills to fully comprehend the test questions. Of the 12 preschool children present on the day of the first test only 7 responded to the test questions (the rest remained silent) and only 4 of these children (all aged 6 years) were present for the second test. Of the 15 primary school children who completed the first test only 7 were present to take the second test (average age 8.5 yrs., SD 1.1, range 8 to 11 yrs.). The high attrition rate confirmed the poor school attendance and high mobility of the community.

The test scores suggest that the preschool children had a huge increase in knowledge of equal magnitude for three children and practically no increase for one child, whereas the child educators had increased in inverse proportion to their initial knowledge. (That is, the one who initially knew most learned nothing and the one who knew nothing made a huge increase similar to that of the preschool children!) Clearly these data are very difficult to interpret. We have to bear in mind that there were language, cultural and social barriers between the children and their teachers. In this context neither primary school children nor preschool children were able to learn the health messages taught during the intervention. In contrast both primary school children and preschool children in the main experimental school (for Batswana children) significantly improved their learning of the health messages (as we saw in chapter 8).

10.3.2 The focus group discussion: We saw in chapter 9 that the main field study used focus groups to identify factors which could enable or inhibit the effectiveness of children as health educators. When an attempt was made to transpose this method directly into the settlement school it proved to be ineffective. It was not possible to involve children in focus groups because there were no adults in the school who were sufficiently fluent in Sesarwa to interpret the discussion and children could not speak sufficient Setswana.

An attempt was made to organise a focus group with Basarwa members of the settlement development committee who were mostly guardians rather than parents of school children. The eleven women and seven men did not wish to separate into two groups, consequently the focus group was too large and heterogenous to be effective. The discussion was

informal, almost festive, but language problems inhibited dialogue between participants and facilitator. The facilitator only spoke Setswana and could not follow the discussion when the participants talked amongst themselves in Sesarwa. Women were noticeably more outspoken than men. (The photo-record in appendix 3 (p.A22) shows women actively participating in the focus group.) The discussion was dominated by concern about the quality of borehole water in the settlement which was considered to be salty and unpalatable. Participants were in agreement, however, about the reason for sending children to school: '....so that they may be able to work for themselves and even help their parents in the future'. It would have been useful to extend the discussion to explore attitudes of parents to learning from their children and the problems of teenage pregnancy and physical punishment in schools.

10.3.3 Children's drawing and writing: Data were collected from the eleven primary school children in the settlement school involved in the study aged 9 and 10 years. As we saw in chapter 6, children were firstly asked to think about all the things they did or could do to make and keep themselves healthy. They were cautioned not to tell anyone else what they were thinking and then asked to draw as many of these things as they could on one side of a sheet of paper and to write what was happening in each of the pictures. Secondly, they were asked to think about all the things they did or could do to make themselves unhealthy and to draw and write about them as before. Finally, they were asked to draw and write about the things that happened which made most people die. These questions were posed in Setswana and also in Sesarwa, the school cook was able to translate these simple instructions into Sesarwa. The photo-record in appendix 3 (p.A22) shows Basarwa children involved in draw-and-write. Each response consisted of a picture and a written comment. These were analysed together to identify major categories and sub-categories before individual responses were classified.

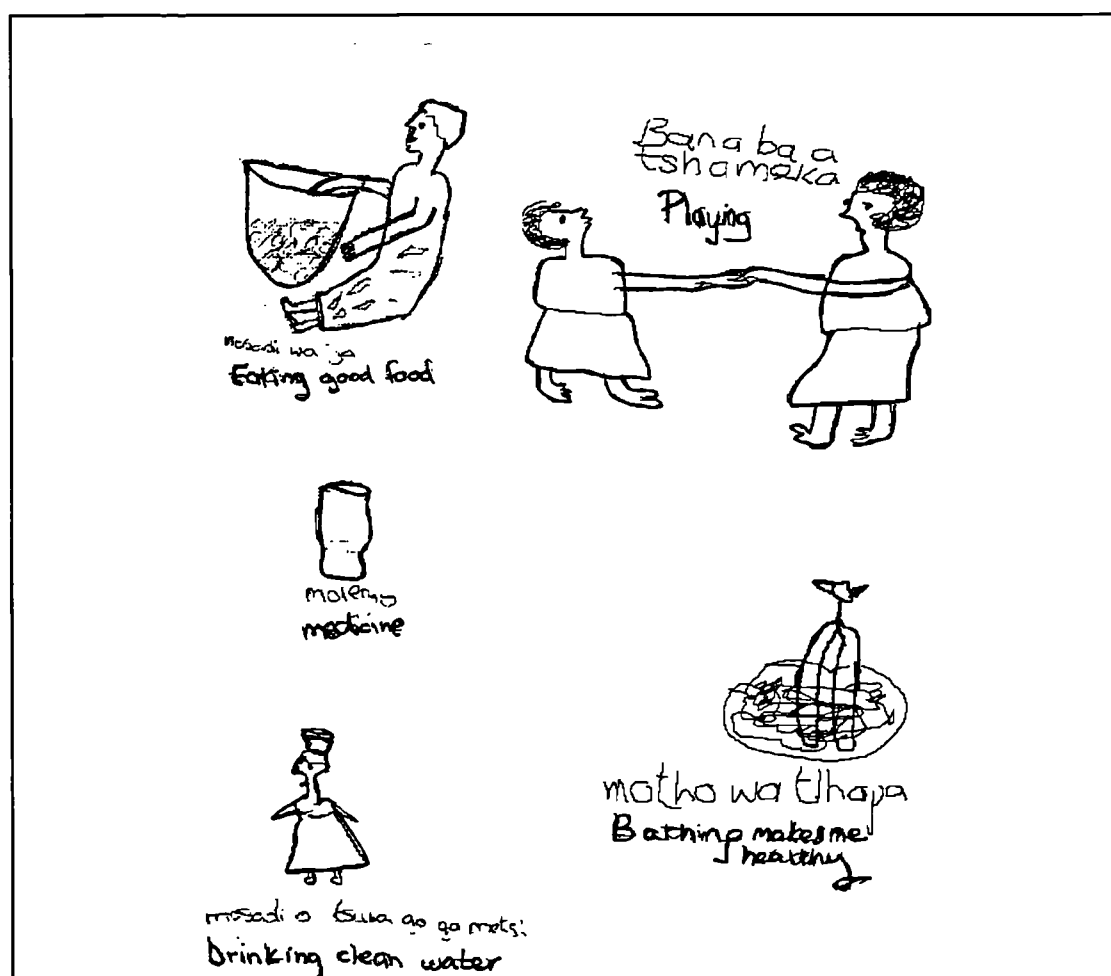
What makes you healthy? The responses of the eleven Basarwa children fell into four categories - food, exercise, medicine and hygiene. (We saw in chapter 8 that in contrast the responses of one hundred Batswana children fell into only one category - food). This may reflect a broader system of beliefs about the causation of health and disease among

Basarwa children. Five Basarwa children drew pictures of themselves involved in exercise whereas none of the Batswana children depicted exercise. Surprisingly, no children depicted sleeping, or keeping safe as causes of health. (Table 10.1 and figure 10.1)

Table 10.1 Basarwa children's beliefs about what makes and keeps them healthy

<u>Category</u>	<u>No. of children responding at least once (n=11)</u>
Food and drink labelled as 'good'	7
Exercise (playing, singing, dancing)	5
Medicine	1
Hygiene: drinking clean water	1
: bathing	1

Figure 10.1 Basarwa children's perceptions about what makes them healthy



What makes you unhealthy? The majority of children (7 out of 11) identified the unhealthy habits of drinking and smoking although fighting and accidents were also represented. Only one child identified disease and one child drew herself 'being hungry'. (Table 10.2, figure 10.2.) (In contrast most of the Batswana children drew sugar and sweets, as we saw in chapter 9). Children drew fewer pictures in response to this question than to the other two questions which may have been because they found it more difficult to understand what was meant by being unhealthy.

Table 10.2 Basarwa children's beliefs about what makes them unhealthy

<u>Category</u>	<u>No. of children giving this category at least once (n=11)</u>
Unhealthy habits : drinking alcohol	5
: smoking tobacco	2
Violence: fighting (knives, axes, stones)	4
Accidents: snake-bite/fire	3
Infectious disease: scabies	1
Malnutrition - hunger	1

What do most people die from? Four categories were identified, violence, accidents, wild animals and suicide. No diseases were recorded which was puzzling as there was a high incidence of infectious childhood disease in the area. That disease was not mentioned may have been because children remembered the more violent causes of death more than the common-place or because, within their own understanding of the universe, disease was seen as only one of many factors which ultimately resulted in death (table 10.3 and figure 10.3). (We saw in chapter 9 that the same four categories were identified in the pictures from Batswana children but there were also many pictures of diseases and sorcery, witches and spirits.)

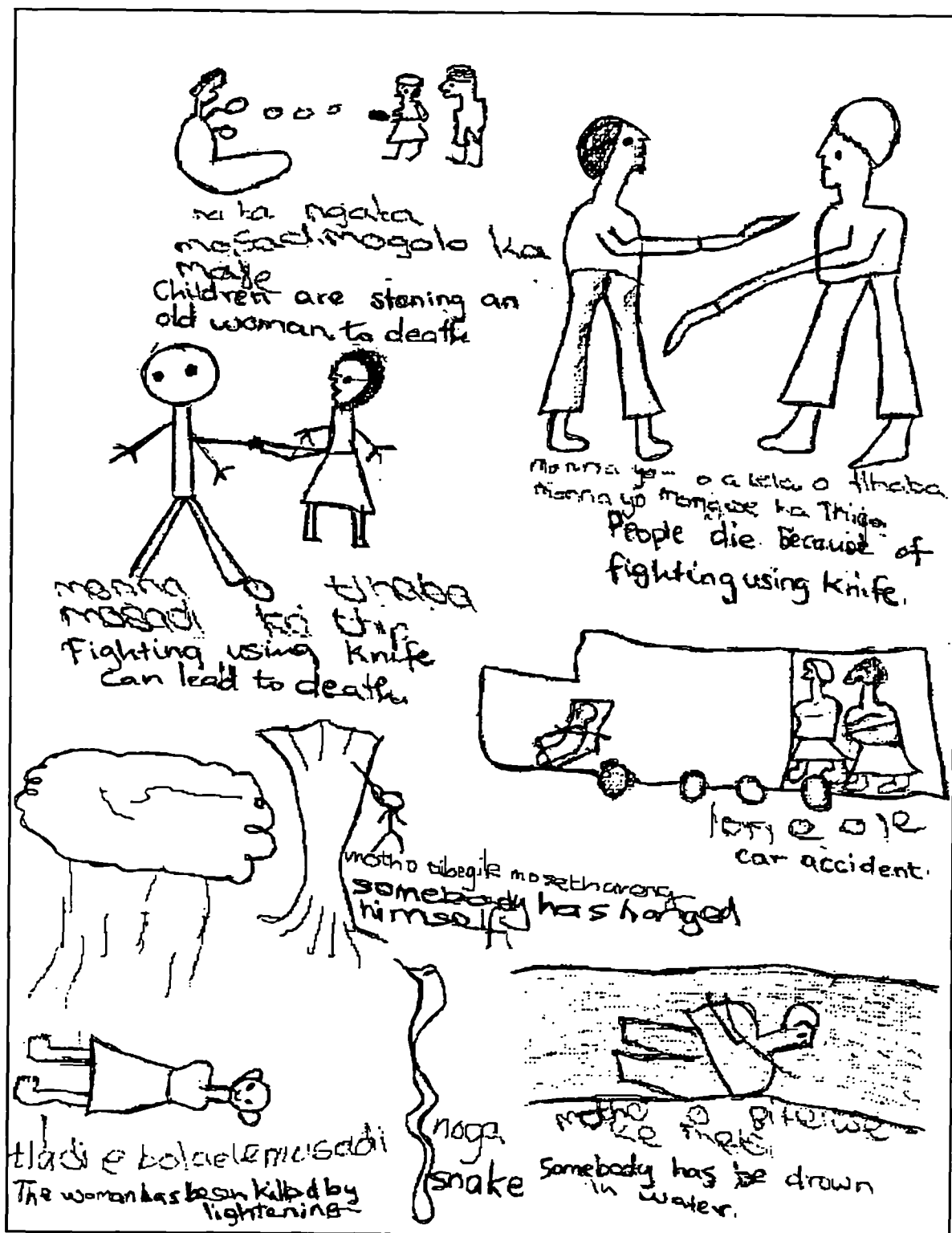
Table 10.3 Bushmen children's perceptions about what most people die from

<u>Category</u>	<u>No. of children giving this category at least once (n=11)</u>
Violence: fighting	8
Accidents: (eg. traffic, lightening, drowning)	5
Wild animals (snake)	1
Suicide (hanging)	1

Figure 10.2 Basarwa children's perceptions about what makes them unhealthy



Figure 10.3 Basarwa children's perceptions about what most people die from



10.3.4 The importance of play: Children were observed playing without adult supervision in the school compound for two or three hours at a time. They did not become bored or disruptive and their play was creative and harmonious. Boys often played football with a compressed paper ball. They did not play in teams and there was no goal. Girls liked to stand or sit in a circle and to try to hit a girl in the centre of the circle with a paper ball before she could fill up a glass bottle with sand. To avoid being hit by the ball the girl in the centre leapt around with incredible agility. (See photo-record in appendix 3 p.A23.) Children were also observed practising traditional Basarwa dances accompanied by clapping and singing. The dances, which were dramatic and required great agility and precision, included many of the patterns described by Marshall (1976 p.313-362). The children were preparing to perform these dances at a cultural gathering in the District. Here was an example of a cultural renewal in Botswana and a demonstration of the desire of the Baswara to resist assimilation and to preserve their own traditions.

10.4 The need for reform

10.4.1 The need for a new educational model: The experience gained in the settlement school highlighted the way in which Basarwa children were multiply disadvantaged. The failure of the education system to take account of the linguistic, cultural, social and economic barriers to learning for Basarwa children resulted in low enrolment rates and high drop out rates. These findings argue for a more relevant model of schooling.

The most important finding was that young Basarwa children were educationally compromised because they did not speak Setswana, the language of instruction in the school. The language barrier was exacerbated by a western model of education relying on language as the main vehicle for learning. That the language barrier was a major cause of the intervention programme failing to result in any measurable increase in learning is corroborated by the findings of other researchers (Mogwe 1992; Kann 1989).

Social and cultural barriers to learning were also highlighted. Children cannot learn well

if they are cold, hungry and not adequately cared for or if what they are taught bears little resemblance to their own world view. Although everyone in the settlement experienced some hardship, the teachers and other Batswana in the settlement enjoyed better clothing, housing and access to transport than the Basarwa. The cultural gap between school teachers and children prevented teachers playing their central role as a 'cultural bridge' to facilitate learning.

It is significant that Government policy does not acknowledge the distinct culture of Basarwa children at a time when educationalists are increasingly aware that what matters most in the learning situation is the relationship between the culture of the learner (or group of learners) and of the teacher (or the school). A lively debate within the Botswana Ministry of Education on ways of achieving 'Learning For All' has failed to address the central issue of whose culture is being transmitted. This failure endorses the Basarwa's own view that the Government is using the education system to acculturate their children and corroborates the findings of other researchers (Campbell et al 1991 p.37, Lee 1984 p.142, Mogwe 1992 p.3.).

The model of education in the school was traditional and western. The content of what was delivered and the language of delivery were largely unfamiliar to the learners. Learning was rule-oriented and unidirectional. Competition was encouraged and learning outcomes were judged by examination results. This contrasted sharply with the traditional Basarwa model of learning and teaching where, as we saw earlier in this chapter, childhood learning in the family unit or playgroup was informal, non-competitive, task orientated and relatively free of rules. Children learned through experience and experimentation or directly from elders. The experience gained in the settlement school confirmed that schooling is essentially a process which hastens the breakdown of the traditional Basarwa culture and replaces it with the culture of the school, a fact well recognised by educationalists.

To be effective health education must be informed by a sound understanding of traditional belief systems because conflict between the children's own health beliefs and western 'biomedical' conceptualizations of health can cause new ideas to be rejected. Draw-and-

write proved to be a powerful method for exploring children's beliefs about health and data confirmed that Basarwa children had retained a unique world view which differed from that of Batswana children. The data showed that new ideas about disease have not yet been fully assimilated into traditional belief systems.

The children's drawings of non-competitive games, dancing and singing reflected the high value given by Basarwa to harmonious relationships and to the medicine dance which promotes psychological health and wellbeing. The drawings also endorsed the findings of other researchers that Basarwa, unlike Batswana, have no notion of sorcery and avoid making reference to the spirits of the dead (Barnard 1993). Basarwa children are beginning to adapt their knowledge systems as a result of interaction with the dominant Batswana culture. For example, the drawings showed that some children were aware that alcohol and smoking caused health problems in their community. The frequent depictions of violent death may indicate that Basarwa children are shocked by what they see as alien to their own culture or may be indicative of social change and the gradual breakdown of traditional social organization.

Since the time of the field study in 1992 a more relevant model of preschool education has been piloted in Ghanzi District by an indigenous organization called 'KURU' which is committed to work against racism and inequalities. The major focus of its work has been the development of a community school. In its first year (1992) this school had four sections: a literacy section to develop skill in Sesarwa (Nharo), a preschool teacher training programme, a cultural centre, and a section for other workshops and courses which were felt to be needed. The Kuru Development Trust (KDT) claim that the cultural centre, which promotes the Basarwa culture, has tremendous symbolic value and that it has strengthened the self-esteem of all who have visited it. The importance of a culture centre (culture house or culture circle) is also recognised by other indigenous communities such as the Harakmbut in Peru (Aikman 1994b) and the Mohawk indigenous society in Canada (Occleston 1994).

Since 1993 KDT has been running a preschool programme in some of the Ghanzi settlements including the settlement involved in the field study. The programme

encourages parents to visit and help in the preschool school and tries to reduce the barriers to learning which young Basarwa children face on entering school by teaching them Setswana at the preschool level. The aim is to help them understand the teachers by the time they reach primary school. The preschool teachers, recruited from within the Basarwa community, are taught to stimulate children's cognitive skills and also monitor their health. The project provides the teachers' salaries and some basic food for the children. In these ways it tries to ease the children's entry into Government primary schools. However two major constraints have been identified to sustainability of the community preschools. Firstly, the extreme poverty of the communities which is due to lack of jobs in the area and prevents them being able to support their schools financially. Secondly, many parents have not yet mobilized towards change in their communities but have adopted a dependent apathetic stance towards their situation.

An alternative model of intercultural education has also been developed by Harris (1990) in his theory of cultural domain separation. In this model there is a 'western domain' and an 'indigenous domain' within the school itself. The western domain allows students to adapt to western content and pedagogy whilst the indigenous domain embodies indigenous content and learning contexts. This model also has considerable potential for developing a new model of schooling in Botswana.

In conclusion this case study has illustrated the way in which learning and schooling are both value-loaded and politically-loaded and it is evident that the Basarwa are faced with a real dilemma. They want to maintain their traditional way of life and collective identity and have good reason to be suspicious of the impact of Government schooling on their lives. However they recognise that the ability to read and write and to speak for themselves in Setswana is potentially empowering and could enable their children to become protagonists in defence of their own rights. As Lee (1984) has observed 'the ability to read and write has become an even more important skill than hunting and gathering in the struggle for survival' (p.142). The Government is creating laws which increasingly control their lives and without education to enable them to interpret these laws and make appropriate responses their future is bleak. They will continue to be assimilated into the lowest socio-economic level of the Batswana nation.

10.5 Summary

This chapter has highlighted the inadequacy of the current model of schooling delivered to Basarwa children in Government schools in Botswana. It contends that their education should be re-evaluated from a cultural viewpoint. It has demonstrated how children and teachers are embedded in a dynamic, cultural, social and political web and that serious language and cultural barriers exist to learning. These barriers emphasise the need for a new model of schooling to develop the skills needed for Basarwa to gain a greater degree of self-determination. Until a more relevant educational model is available Basarwa children will continue to be disadvantaged.

PART V SYNTHESIS AND IMPLICATIONS

Chapter 11 CONCLUSION

This thesis has argued that there is a need to study innovative approaches to health education in order to increase our understanding of how the ideas and methods of such approaches are being practised in different contexts. Well-designed studies are needed to assess the impact of innovations in health education. This study of the Child-to-Child approach is a contribution to the fulfilment of that need. The concluding chapter of the thesis provides a synthesis of the analysis and the findings, draws out the implications and makes recommendations for future action and research. The chapter is organised in relation to the research questions framed in chapter 1 and presented again below:

1. (a) What was the original formulation of the Child-to-Child concept and to what extent has this changed over time?
- (b) How have Child-to-Child ideas and methods been interpreted within the Little Teacher Programme in Botswana?
2. (a) What is the effect of child educators on the ability of preschool children to recall health messages and to give account of expected health behaviours?
- (b) What is the effect of performing the role of a health educator on the ability of child educators to recall health messages and to give account of expected health behaviours?
3. (a) What is the process by which child educators are able to pass health messages to preschool children and to their own parents?
- (b) What are the important factors which enable or inhibit the effectiveness of child educators?

Additional questions have been addressed by extending the main study to include an urban school and a school for Basarwa (Bushmen) children:

4. (a) What is the influence of the poor urban situation on the effectiveness of child educators?
- (b) What is the influence of ethnicity on the effectiveness of child educators?

11.1 Synthesis of the analysis and main findings of the study

11.1.1 Critical analysis of the Child-to-Child approach to health education: This analysis revealed that Child-to-Child was originally formulated as an international programme designed to teach and encourage school children to concern themselves with the health, welfare and development of their younger brothers and sisters and of other children younger than themselves in the community. This formulation has broadened over time to affirm the power of children to influence their own age group, their families and their communities. However the underlying philosophy continues to maintain a deep commitment to the three original principles - Primary Health Care, Children as agents, Partnerships for health.

Child-to-Child is promoted as an innovative approach which respects but at the same time challenges traditional models of health education. Child-to-Child builds on the tradition of children helping each other and their families and sharing their ideas but rejects the low position traditionally occupied by children in the social hierarchy. I have argued that this balancing of respect for tradition with commitment for change is in reality a sophisticated approach more easily understood in theory than applied in the field where the risk will always be that traditional assumptions about the role of the child will prevail.

Supporters of Child-to-Child claim that the approach is sufficiently flexible to be adapted to different cultural contexts and to be owned by those implementing it. I have argued that where Child-to-Child is adapted to the local context there is the risk of the essence of Child-to-Child being compromised or lost. Concern for children themselves, always fundamental to the philosophy of Child-to-Child, has not always been evident in practice. Many programmes lack an understanding of the child-centred methodology promoted by Child-to-Child which challenges children to think and to solve problems for themselves. I have also argued that the continuing influence and inspiration of the founders of Child-to-Child, though they themselves would not wish it, makes an appraisal of the Child-to-Child approach on its own merits difficult. In this respect it is clear that time will allow a more detached and objective appraisal of Child-to-Child. Conclusions about Child-to-

Child, not least the conclusions of this present study, must be provisional.

Child-to-Child advocates a particular methodology in health education. But it also presupposes a frame of mind about children and their status in society at variance with received attitudes in most non-western cultures. Child-to-Child methods and materials will not of themselves win sought-for health changes where traditional assumptions about children still hold sway. I have argued that it remains to be seen how far Child-to-Child can overcome traditional resistance to the principle of children as agents of change by those who do not share western assumptions about children. I contend that changing minds will prove as formidable an obstacle to the implementation of Child-to-Child as changing the structural, economic, and social conditions which impede its realisation in practice. Consequently I have questioned the extent to which practice and theory have corresponded and how far Child-to-Child has ever really been fully implemented. I have had to ask how far Child-to-Child remains 'a dream that has yet to come true'.

Whilst recognising that no one 'owns' Child-to-Child the Trust has accepted that there must be some guidance, if not some control, as to how the movement's approach is to be interpreted and implemented. Child-to-Child is a series of related ideas and ideas can be altered beyond recognition. I have noted that Child-to-Child is practised in widely disparate ways some of which are hardly recognisable as Child-to-Child and which, for all our difficulty in defining the character of Child-to-Child, reflect neither the principles nor the methodology of its approach as most would understand them.

The lack of control exerted over implementation of Child-to-Child contrasts strikingly with the firm control exerted over some other educational approaches which have 'top down' rather than 'bottom up' structures. For example, in the 'Reading Recovery' Scheme developed in New Zealand by Marie Clay, very firm control is retained over its curriculum, its training mechanisms and its 'quality' (Clay and Watson 1982).

The possibility of introducing some form of 'vetting' of initiatives claiming to use Child-to-Child has been raised but notions of control are not easily compatible with the ethos

of Child-to-Child. The Trust has always made a point of setting aside ownership of ideas, programmes, projects and materials and has encouraged people to adapt the ideas to their own context. Consequently accreditation is not yet being seriously considered. However the Trust is currently interested in developing clusters of resource persons, regionally or nationally, who would play an important role in reducing the gap between theory and practice.

11.1.2 A comparison of theory with practice in Botswana: This analysis examined how the theory of Child-to-Child has been interpreted and applied within the Little Teacher Programme in Botswana. I have argued that in Botswana there is much misunderstanding about the character of Child-to-Child. It is widely regarded as being synonymous with the Little Teacher Programme. I consider that this is an unfortunate confusion and that there is a pressing need for the Child-to-Child approach to be distinguished from the Little Teacher Programme if its potential is to be realized more fully.

Within the Little Teacher Programme the interpretation of Child-to-Child is still informed by the original formulation of the approach which dates from 1979. I have observed that this interpretation is narrow and outdated and that as the programme focus has shifted away from health education towards preschool preparedness it has increasingly neglected the needs of the child educators involved in the programme. Although preschool preparedness is a relevant aim the child first needs to survive - and to start school healthy enough to learn.

I have further argued that to a greater or lesser measure all of the general criticisms of Child-to-Child can be applied to the Little Teacher Programme in Botswana. I contend that the fundamental change of mind about the role of the child in health education which is necessary for Child-to-Child to be implemented has not taken place or is incomplete. Evidence for this lack of conversion is to be found in the fact that the lesson plans have not been updated in sixteen years of use and in the lack of interest in the latest ideas about Child-to-Child from London. I have argued that the hardest question is how far it is fair

to expect in societies such as rural Botswana the kind of thinking and rethinking which Child-to-Child demands. I have stressed that if this criticism is fair it is less an adverse reflection on the culture of Botswana than a comment on the academic culture in which the philosophy of Child-to-Child originated and where its ideas continue to be debated with greater facility.

I have also criticised the Little Teacher Programme for justifying in the name of Child-to-Child traditional didactic methods in which teachers give a talk and then ask children a rapid series of questions to test knowledge. There is a danger that the programme may be using children as megaphones to repeat adult messages. I have argued that the notion that Child-to-Child is about child educators learning messages from adult teachers and then cooperating by repeating these messages to preschoolers and to their parents at home is at variance with the Child-to-Child concept.

11.1.3 The effectiveness of children as health educators: The field experiment was designed to collect data from which to address the hypotheses that:

- Child educators can have a significant effect on the knowledge level of preschool children
- Performing their role as child educators can have a significant effect on their own knowledge level.

The statistical analysis of knowledge test data showed a significantly greater knowledge gain in the experimental group than in the control group both for child educators and for preschool children. Child educators appeared to have had a significant effect on the ability of preschool children to recall health messages and to give account of expected health behaviours. It would also appear that performing the role of a health educator resulted in a significant increase in their own ability to recall health messages.

I have therefore concluded that children can be effective as health educators in imparting knowledge when the Child-to-Child approach is used. These findings are important because they support the claims of Child-to-Child that children are able to learn health

messages and to pass them on to other children and that they can benefit themselves from doing so. However it has been acknowledged that firm inferences cannot be drawn about population values from these data because the study was quasi-experimental and sample sizes were small. I have argued that the field experiment has provided a model which could usefully be repeated. A repeated experiment yielding similar results would show that the findings of this study are substantive.

11.1.4 The process by which children can pass on health messages to preschool children and to their own parents: The study found that in the Little Teacher Programme child educators were using a variety of approaches to pass messages to preschool children. At times they adopted the role of a traditional didactic teacher but then would change to more interactive methods such as singing and dancing, drawing, and drama. Child educators usually passed health messages to their parents verbally although parents also learned by observing their children's play activities, listening to songs or seeing written work (such as pictures and poems brought home from school).

11.1.5 Important factors which enable or inhibit the effectiveness of child educators: Most of the messages in the intervention programme were passed by girls to their mothers (or other female relative) in the home. This is an important finding of the study and supports the findings of Zaveri in India (1991 p.208). However the study also found that parents often do not have the time to listen to their children even if they want to and that space needs to be made available for parents and children to come together and communicate. The frequent absence of fathers was found to be an important factor which inhibited children passing messages to their fathers.

The study found that the acceptability of children as educators of their younger siblings was not in doubt whereas the notion of children as educators of parents was problematic. The results suggested that, although children had been able to pass some of the intervention messages to their parents, other types of message would be more difficult for them to pass. Messages about hygiene and about child growth and development were found to be equally acceptable whereas messages, such as one saying how long a child

should be breastfed, which could imply lack of respect for parental experience would be rejected. It was regarded as very important that children should approach adults in a respectful manner. Furthermore messages which carried resource implications, such as money to buy soap for hand washing, might not be well received. There was some evidence, however, that the reticence that parents have traditionally felt about discussing sexual health with their children is beginning to decrease because parents recognise that children need to be informed if they are to help prevent the spread of new infections such as HIV. These findings highlight the difficulties faced by children in passing messages to adults in societies where children occupy a position of low status and corroborate the findings of other researchers (Somerset 1987; CHETNA 1990; Knight, Grantham-McGregor and Ismail 1991) noted in chapter 1 (p.12).

Another factor which the study identified as important if children are to be effective health educators was the readiness of the school to raise the status of children and to enhance their credibility as educators in the eyes of their parents. A stronger link was found to be needed between the school and the community through the PTA to support teachers and parents in their efforts to develop a dialogue about health with children. It was found to be essential that the head teacher exercised strong leadership and supported the Child-to-Child coordinator in the school.

The study also showed that within the Batswana culture new ideas and practices about health and illness have been incorporated alongside traditional ones so that parents and children now hold a mixture of traditional and modern (biomedical) perceptions. For example biomedical causes are accepted as explaining why people suffer from diarrhoea but traditional reasons are also given. Children still believe in the power of witches (*baloi*).

11.1.6 The influence of the poor urban situation on the effectiveness of children as health educators: The small sample size and high attrition rate prevented inferences being drawn from the knowledge test data. Consequently it was not possible to assess the effect of child educators on the ability of preschool children to recall health messages or

of the effect of performing their role as educators on their own ability to recall health messages. However the number of children lost to the study through absence suggested that children did not attend school regularly, especially preschool children and the teacher subsequently confirmed that this was a problem in the school.

Another problem identified in the study was the lack of contact between teachers and parents. The Child-to-Child teacher did not know whether children took the messages home to parents because the school had not been able to engage the parents in this or any other school activity and she had never met most of the children's parents. The fact that parents and teachers are not in touch has serious implications because it brings into question the extent to which Child-to-Child can be a model of community development in this poor urban community.

11.1.7 The influence of ethnicity on the effectiveness of child educators: The most important finding was that young Basarwa children were educationally compromised because they did not speak Setswana, the language of instruction in the school. The language barrier was exacerbated by a traditional western model of education relying on language as the main vehicle for learning.

Within this context neither primary school children nor preschool children were able to learn the health messages taught during the intervention programme. That the language barrier was a major cause of the intervention programme failing to result in any measurable increase in learning is corroborated by the findings of other researchers (Mogwe 1992 p.31; Kann 1989 p.97). The language barrier prevented focus groups being conducted with children and made it difficult to conduct the parental focus group. The study also found that there were cultural and social barriers to learning for Basarwa children. The high attrition rate from the study confirmed the poor school attendance and high mobility of the community.

The study found that the health perceptions of Basarwa children, like those of Batswana children were informed by a mixture of biomedical and traditional beliefs. Although there

were similarities between the perceptions of the different ethnic groups there were also important differences. For example Basarwa children perceived play and exercise as important causes of health and they had no perception of witchcraft or sorcery.

11.2 Implications of the research findings

11.2.1 For health education: This study has increased our understanding of the contribution which children can make as promoters of health and provided support for the use of peer tutoring approaches. It has contributed to our knowledge of the strategies children use when tutoring and thereby helped to fill the gap in the literature noted in chapter 2 (p.23). The need for more attention to be paid to formative evaluation of health education initiatives was recorded by Veen, Vereijken, van Driel and Belien (1994) and by Peters and Paulussen (1994) and noted in chapter 1 (p.5). This study has made a contribution to the fulfilment of that need.

The study has highlighted the importance of local adaptation of health education initiatives being informed by a detailed and sensitive understanding of the social, cultural and environmental context within which programmes are being implemented. The need for such information has been widely advocated (see Mullen et al 1989; Francis 1993; Van der Vynckt 1992/3), and noted in chapter 1. Much useful information has also been provided which could be used to support an educational and environmental approach to health promotion planning. Such information is necessary to support the application of robust planning frameworks such as the PRECEED-PROCEED framework developed by Green and Kreuter (1991). I have argued that robust planning frameworks should be used to increase the relevance and effectiveness of health education.

This study has also contributed to our knowledge of the way in which sophisticated concepts can be misunderstood and misinterpreted in their implementation. Concepts such as the right of the child to participate as a partner in health have been developed in relation to the so-called 'global' child. I would argue that such a child does not exist. In

reality there are many different children and many different childhoods. Moreover there is little agreement amongst those who advocate child participation about what this really means. The notion that children have a right to participate is a difficult concept in many societies where age is an important aspect of social hierarchies. We have seen that in moving from the 'global' child, a notional entity, to the 'local' child, the empirical child born in one place and at one time, the essence of important ideas about the nature of partnership with children can be lost. This gulf between the ideal and the actual is not surprising in communities where equitable partnership between adults (let alone between children and adults) is not part of the social structure. I contend that in some societies the concept of partnership with children is so new that it is virtually impossible for people to grasp it. In the local context it is equally important to understand what is the opinion held of the notion of partnership with children and whose opinion counts? However even if we must accept that the process of achieving partnership with children may take many generations, it remains a necessary goal. In this respect Child-to-Child serves as a compass for health education. The destination may be distant but Child-to-Child has shown the direction clearly.

The study also lends support for the model of learning put forward by Little (1992). We saw in chapter 2 (p.24) that, according to this model, learning only occurs if the gap between what the learner and the teacher each bring to the so-called 'learning arena' is capable of being bridged. The gap identified by Little results from a combination of differences in knowledge, learning methods, reasons for learning and outcomes of learning. The inability of Basarwa children to learn the intervention health messages in the context of the settlement school suggests that for Basarwa children the gap was too wide to be breached. This failure to bridge the gap is important not only because the children did not learn the intervention messages but also because, according to Little's model, the failure could hinder future learning.

The experience gained in the settlement school provides strong support for the contention made by France-Dawson (1994), and noted in chapter 1, that there is much to be learned from interventions which have failed to show the desired educational change. This thesis

has gone some way to meet the need for studies reporting 'negative' results of interventions to be more widely disseminated.

11.2.2 For the conceptualization of Child-to-Child: The findings revealed serious misconceptions of the character and purpose of Child-to-Child by those entrusted with the implementation of a Child-to-Child programme. The fact that Child-to-Child is misunderstood by those supposed to be putting its ideas into practice has important implications. I have argued that Child-to-Child lends itself to being misunderstood in cultures, such as that of the Batswana, where the role of children is seen very differently from the way in which it is seen in the west. Where Child-to-Child challenges received attitudes about children the undertow of traditional assumptions will always be pulling against the direction in which Child-to-Child is seeking change. The implications are that Child-to-Child must take greater account of the extent to which it has worked with this western frame of mind, that it must recognise more seriously the degree to which the mind of non-western cultures will be resistant to aspects of its approach, and that it must investigate more fully how far its essential principles can be assimilated within such cultures. Only then could it be shown whether 'the Child-to-Child dream can come true'.

11.2.3 For Child-to-Child in Botswana: The high ideals which Child-to-Child upholds are clear and compelling. For the present in Botswana we may have to settle for a reality a long way short of these ideals, such is the strength of traditional attitudes towards the child in society. Nevertheless the attempt must be made to implement Child-to-Child in a way that is faithful to its central tenets. In Botswana the ideas and processes which are central to Child-to-Child need to be reiterated. Without underestimating the difficulty in the Botswana culture of achieving the necessary change of mind, a renewed attempt needs to be made to convey to those running Child-to-Child programmes what is the heart of the Child-to-Child approach.

11.2.4 For the effectiveness of children as health educators: The findings imply that children are able to be effective at passing messages to preschool children within the Little Teacher Programme. It would also seem that they can pass some messages to their

parents. I have argued that the increase in knowledge gained in this way is important if we believe in an educational foundation for health promotion. Moreover there is considerable evidence that knowledge is necessary to effect change in behaviour although not sufficient on its own (Ajzen and Fishbein 1980). The fact that performing the role of health educators resulted in educational benefit to the children themselves could have substantial implications for Child-to-Child. As recognition of the structural and environmental barriers to behaviour change become more evident the educational benefits of Child-to-Child become increasingly important.

Another important implication of the study is that the acceptability of children as health educators within their family and community needs to be strengthened. The fundamental reason for the unwillingness to accept children as health educators is their low status within society. I have argued that this is a problem needing to be addressed within a larger debate on social organisation and the rights of the child.

The finding that most messages are passed from girls to their mothers (or other women) implies that Child-to-Child can be a useful means of educating women about health. This is an important implication because of the strong and well established link between maternal education and the mortality rates of infants and young children noted in chapter 3 (p.54). The fact that a greater proportion of girls chose to join the Little Teacher Programme in the experimental school implies that girls are more attracted than boys to the caring and nurturing roles performed by the little teacher. However it does not imply that boys do not benefit from the programme. The education of boys is also associated with improved child health and more effort should be made to recruit boys to the programme and to find ways of reaching fathers whose frequent absence was identified as a factor which inhibited messages being passed to them.

The findings also imply that the curriculum of the Little Teacher Programme needs to be reformed to take into account the children's own perceptions of health and illness. The data obtained using draw-and-write was very rich and I contend that this can be a very powerful method for exploring children's health perceptions. Draw-and-write may be

especially useful where children have literacy problems because it allows them to express through drawing ideas for which they do not have words and then to seek help to write about these ideas. However for all its potential I have argued that draw-and-write needs to be carefully and sensitively adapted for use in different contexts. Consideration needs to be given to the question of ownership and confidentiality of data, to the interpretation and use of data, to the need for adequate debriefing of children, and to the integrity of the practice if it is really to treat children as subjects and not merely as objects of research.

11.2.5 For learning and schooling of Basarwa children: The finding that language, cultural and social barriers exist to the learning of Basarwa children in school has important implications for educational policy and planning.

The need for educational policy change: Government policy is to develop Botswana as one united state of Batswana peoples. Children learn better when they share the same language, culture and social situation with their teachers but I would argue that current policy is increasing inequalities by undermining the effectiveness of schooling for the Basarwa. The language barrier between children and teachers is a cause for particular concern and we have to question why the Government is insisting on Setswana as the only medium of instruction in schools at a time when Sesarwa speaking school teachers are not available to facilitate communication.

Government policy does not recognize the existence of the unique culture of the Basarwa who want to be part of the nation state and to improve their economic and social status but not at the expense of their own culture. Ideas and models of education imposed by those outside the culture of the child can prejudice the culture which the child brings into the learning situation. I have therefore argued that by encouraging Basarwa children to enter the formal education system the Botswana Ministry of Education is effectively promoting the destruction of their cultural tradition and way of life.

A strong case can be made for a change in educational policy on the grounds that current policy amounts to unofficial racial discrimination against the Basarwa and that to

recognise their distinct culture would be rightly to welcome the cultural diversity of Botswana and to affirm its cultural heritage. This argument may be particularly effective in the current climate of cultural renewal in the country. There are signs that the Batswana are beginning to realise not only the need to preserve and promote their own culture but also to recognize the rich contribution which Basarwa people have to make.

The need for curriculum reform: The findings of the study also have implications for the model of education being used for Basarwa children. The high mobility of the Basarwa demands a more flexible, less formal model of schooling. This model would need to be bilingual and inter-cultural to overcome existing barriers to access and to learning and to affirm and strengthen the culture of the child. The model would need to achieve a balance and consensus between Basarwa, Batswana and western learning styles in order to enable Basarwa children to move into the wider society without sacrificing their own cultural identity. A more relevant 'indigenous' pedagogy needs to be built using traditional Basarwa pedagogy and taking into account their own world-view. The main vehicles for learning would be watching and doing and the familiar culture of family and community would be strongly emphasised. An innovative and more relevant curriculum would help develop the skills needed to gain greater equity.

The findings of the study also have implications for the training of teachers. Traditional teacher training tends to select young people and take them away from their communities for training, thus risking their becoming culturally alienated and encouraging them to view their own culture as disadvantageous to the role of the school teacher. It may be more appropriate to select as teachers older Basarwa men and women who already deliver a relevant informal pedagogy to children in the playgroup and who help the children develop the skills needed to maintain their traditional way of life. This strategy has been successfully used in Primary Health Care Programmes to train traditional birth attendants as community health workers.

Although the study highlighted problems with the Little Teacher Programme I have argued that it is important to distinguish Child-to-Child ideas and methods from the way

they have been interpreted within this programme. I consider that if the ideas and methods can be sensitively adapted to the local context Child-to-Child has considerable potential for promoting the learning of Basarwa children. Child-to-Child advocates the use of active learning methods (song, dance, games, stories) which are part of traditional Basarwa pedagogy and have the potential to increase the relevance of the school curriculum and to reaffirm children's own knowledge systems and social organization. The Child-to-Child methodology could challenge children to think critically about their health problems as well as improving their self-efficacy and developing their leadership skills. Such children would be well prepared to help their people move forward. Older children could help younger siblings to understand Setswana and so ease their entry into Government schools. The egalitarian nature of Basarwa society would facilitate the effectiveness of children as health educators within their communities. Child-to-Child could be a key to building the bridge between home and school if a new model of education were to be developed through a process of true consultation. Until a more relevant model is available Basarwa children will continue to be disadvantaged.

11.3 Recommendations for future action and research

11.3.1 Action at the international level: A wider debate needs to be developed on the nature of children's participation in development. This debate is currently most active in relation to the rights of children in civil society (ie. the domain in which a child is a citizen) (see IIED 1996) but it needs to be broadened to include their rights as partners in health. If children are to participate we also need to consider how their participation can be assessed and to develop new and more appropriate measures. A start has been made by Hart (1992) who, in developing his so-called 'Ladder of Participation' for children, borrowed the ladder metaphor from Arnstein's (1971) essay on adult participation. More recently Franklin (1995) has developed a more relevant 'Ladder of Participation in Matters Concerning Children' which comprises a 10-point scale ranging from non-participation ('adults rule') to full participation ('children in charge'). In chapter 4 I have argued that this is an emotive issue and it clearly needs more careful and sensitive study.

A wider debate is also needed to examine what is central and non-negotiable to Child-to-Child and to address the major concerns about the approach which have been raised in this thesis. More case studies are needed to examine the extent to which Child-to-Child has been put into practice without its distinctive approach being compromised.

Despite the concerns and unanswered questions there may be a way forward for Child-to-Child. This way forward, I would submit, is to be found in the concept of the 'Healthy School' (WHO 1992a). Here may be an opportunity for Child-to-Child to penetrate the formal education system, for so long resistant to change. This is an exciting possibility, enlisting as it would the support of just under a billion potential children as partners in health promotion. The potential for Child-to-Child to contribute further in this field is unlimited. Within the WHO framework for developing comprehensive school health Child-to-Child could provide a working model of how schools with their parents can set local social development priorities for health and how they can take account of these priorities in other core subjects such as maths, languages and science. By involving parents in what their children are doing Child-to-Child could offer the possibility of a closer link between the school and community.

Educators need to be strongly challenged to accept the need for a 'whole school' approach to health, encouraging the teaching of health across the whole curriculum and aiming to make the health of the school a model for the community. Educators also need to be challenged to accept the need for a methodology which links learning with doing and school teaching to community needs and to health action. We need more examples of good practice in schools and we need to foster alliances between governmental and non-governmental groups at all levels to promote school health. A useful entry point for reform would be the development of 'new look' national health plans along the lines of those detailed by Bomba et al (1994).

Developing a 'whole school' model is central to improving health through schooling and illustrates the breadth of the field into which Child-to-Child now needs to move. Child-to-Child involvement in 'healthy schools' programmes opens the way for developing a

community curriculum which recognises the contribution children can make to achieving community goals. It also allows for the possibility of extending the use of the Child-to-Child methodology to other areas of experience beyond health such as environmental and social studies and the peer tutoring of skills subjects such as reading.

In view of the central role being claimed for Child-to-Child within the WHO Healthy School initiative I would argue for a change in the Child-to-Child name and logo. The original name no longer represents the breadth of the concept of Child-to-Child and does not allow for the range of partnerships needed to promote the role of children in creating healthy communities. These partnerships include those which are made between adults especially those working in health and education. I would argue that the name 'Children-for-Health' is more appropriate and have noted that this name is now being increasingly used in literature produced by the Trust (see Lansdown 1995). The old logo has been criticised for depicting the narrow and outdated notion that Child-to-Child is about older children helping younger children and for gender stereotyping (depicting an older girl child helping a younger boy child). I would argue that two children of the same size, either of whom might be boy or girl, would more closely reflect how currently Child-to-Child sees itself.

11.3.2 Action at the national level: Implications arising from the problems and concerns defined above need to be considered.

Educational Policy and Planning: The question is not whether Child-to-Child in Botswana should continue but whether it should continue in its present form in the Child-to-Child Little Teacher Programme. I have suggested that a way forward for Child-to-Child could be within the WHO concept of the 'Healthy School'. After sixteen years of implementation in Government schools is it not time for the Botswana Ministry of Education to decide whether it wishes the Little Teacher Programme to continue and, if it does wish to retain the programme, to incorporate it within mainstream education as an extension of basic education? The Ministry should accept responsibility for reforming the curriculum, for maintaining the quality of implementation, and for evaluation. The Little

Teacher Programme needs to be revitalised with clearer objectives and sound academic leadership to provide educational vision and to ‘fire people up’.

I would also suggest that an intersectoral Children-for-Health Advisory Board might be established to manage the Little Teacher Programme and that the curriculum of the programme should be radically reformed in order to increase its health content and to ensure that the Child-to-Child methodology is used to promote active learning and to challenge children to think. The programme needs to pay more attention to the educational benefits of the approach to the child educators. I suggest that one approach to curriculum reform would be to ask what older children can do for children under six years in terms of educational improvement, social improvement and health improvement. In addition to the Little Teacher Programme a Children-for-Health Movement could be developed to allow Child-to-Child to be taken up and used within other initiatives. This Movement could also be managed by the Children-for-Health Advisory Board.

The finding of a serious language barrier to the learning of Basarwa children calls for an urgent review of Government policy on Setswana as the only medium of instruction in Botswana primary schools. It also highlights the importance of translation between English, Setswana and Sesarwa at all levels of the education system. Basarwa teachers need to be rapidly recruited and trained within the community. Educators at all levels need to have an intimate knowledge of the Basarwa culture and the ability to use this knowledge to re-evaluate the education of Basarwa children from a cultural viewpoint and to develop a bilingual and inter-cultural model of education. Such a model would need to encompass both the school and the community, and would question the assumption that it is specialists from the western system who are most able to develop and implement such a curriculum. The high mobility of the Basarwa demands a flexible, less formal model of schooling.

Research: A study could usefully explore the ease or lack of it with which different types of health messages can be passed on by a child or by a group of children to preschool children, to parents and to the community. A well designed and controlled longitudinal

study is needed to find out whether child educators and preschoolers achieve better results in school examinations.

It would also be useful to repeat the field experiment reported in this thesis so that the findings could be generalized. However if the study were repeated some minor modifications should be made to the design in the light of experience. It would be useful to test the child educators before any teaching started. It would also be useful to test the knowledge of parents before and after the intervention. Such testing would allow for statistical analysis of the scores to assess the effect of child educators on the ability of their parents to recall health messages. (Parents were not tested twice in the study reported in this thesis because the researcher was advised that parents would be unwilling to attend on two occasions for the knowledge test. However parental cooperation was found to be sufficiently strong for this to have been possible and in any future research the design should be modified accordingly.) If home visits were conducted before and after the intervention programme then change in health behaviour could also be assessed.

The design could also be strengthened by the addition of another study group. The three study groups would then be (i) the intervention group in which intervention is implemented by teachers who have received high quality training in Child-to-Child ideas and methods, (ii) the intervention group in which intervention is implemented using traditional classroom pedagogy by teachers who receive no further training, (iii) the control group in which there is no intervention programme. Parents would also be tested throughout. It would be more rigorous to select 15 schools randomly none of which is involved in the Little Teacher Programme and randomly to allocate five schools to each of three groups. It would also be important to measure long-term retention of knowledge and behaviour change. (As noted in chapter 1 (p.6) few studies have been able to detect any long-term behavioural effects because of relapse although cognitive effects appear to last longer (Peters and Paulussen 1994).)

11.3.3 Action at the local level: I have argued above for action which would use the

Little Teacher Programme as the entry point for launching an innovative 'whole school' approach to health. Schools may wish to develop their own school health action plans (SHAP) along the lines of those currently being used in Kenya and elsewhere (Hawes 1992; Pridmore and Smith 1996). However, as I have emphasised, for children to be accepted as partners in health their status in Botswana society would have to change and such a change could only follow from a radical change of attitude towards them. Ultimately it is change at this level which is needed and which must remain the goal - however distant.

All the various 'stakeholders' in the community - teachers, parents, guardians and health workers, not least children themselves - need to become involved in a process of participatory learning and action (PLA, see IIED 1995). The object of such a process must be to determine what the concept of Child-to-Child means within their situation, to identify what are the constraints to children's participation, and to seek ways of increasing their acceptability as partners in health. It would also be useful to involve children in focus group discussions to identify the types of health messages which they would find easier to pass to their parents and those which they would find more difficult.

For Basarwa children the effectiveness of learning within the government education system is ultimately a question of whose culture matters and whose pedagogy matters. This is a political debate in which the Basarwa will need to develop the ability to speak with one voice and to make that voice heard. Consequently action to improve access to learning for Basarwa children would need to include support and encouragement for the Basarwa to form indigenous organizations and to take leadership roles so that their political voice can be heard in protest against the process of acculturation. With the continued growth of indigenous movements it is to be hoped that the Basarwa will eventually gain a political voice and negotiate a more self-determined model of education.

I have argued that to the Basarwa the school is currently viewed an instrument of the State supplanting the traditional role of the band in educating its children. This perception points to the need to develop strategies to facilitate consultation between school and

community in order to develop a more relevant curriculum. Such consultation needs to be an intercultural educational process of exchange between school and community allowing some selection of curriculum content and the type of teaching most suited for these children. True consultation must acknowledge the need to preserve the language and to affirm the culture of the children. Many writers have stressed that the curriculum must reflect an intimate understanding of the values and perceptions of the learners if it is to be seen to be relevant to them (Aikman 1994; Leach 1994; Carr-Hill 1994).

I would suggest that a new model of education for Basarwa children should accord a central role to the school in addressing indigenous minority/majority relations and that these relations would be the central focus of the curriculum. The model would also need to take into account three important facts: (i) that the community has no control over the educational administration, policy making or curriculum in the school domain, (ii) that school education is widely criticised by the indigenous population and by indigenous and non-indigenous organizations for its acculturation effect, and (iii) that there is no structured approach to dealing with intercultural relations in either Basarwa or Batswana social organization. In developing a more appropriate educational model for Basarwa children useful lessons can be learned from the two alternative models which been put forward in chapter 10 (pp. 214-215). One model is currently being piloted in Ghanzi District by the Kuru Development Trust (KDT) and the other model has been developed by Harris (1990).

11.4 Summary

This concluding chapter has reviewed the main findings from the research presented in this thesis and drawn out the implications of these findings. Recommendations have been made for future research and action.

The significance of this thesis lies in its contribution to the research literature at a time when innovative approaches in health education are being sought and when a small

window of opportunity has opened for health education to prove itself. It has argued for further debate and action to reduce the gap between the theory and the practice of Child-to-Child. It has provided evidence from Botswana to support the effectiveness of children as communicators of health messages.

Children can have a very strong power of advocacy but they are highly vulnerable. Few people have yet developed the special skills needed to work with them as partners in health. It is well recognised that children's lives can be changed by the actions of adults but it is not so widely accepted that children can themselves transform the lives of adults. This is where the future challenge lies.

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APPENDIX 2 SCHEDULE OF FIELD ACTIVITIES

Field visits were conducted between April 1991 and October 1992. The initial visit was used to inform the study design and to start networking with people involved in early childhood education and in health care in Botswana. Access to the field was negotiated through the Office of the President, the CHILD-to-Child Foundation of Botswana, head teachers and teachers in the schools and with parents. Visits were made for training teachers and training the field team and for data collection. On the final visit the findings of the study were disseminated to the schools and to interested parties in the Government, in UNICEF (Gaborone) and in the University of Botswana.

April 1992 - Initial exploration and observation

Schools with established Little Teacher Programmes were visited to gain some familiarity of the context, to observe Little Teacher sessions and to assess what it was feasibly to do in the study. Contact was made with interested parties in the Ministries of Education, Health and Local Lands and Government, and in international and local non-governmental organizations, the British Council, the University of Botswana, and Church organizations. The researcher participated in a workshop for school teachers and others to share experiences of Child-to-Child in Botswana. Contacts established during this initial visit in the Ministry of Education and the University of Botswana later gave advice on the study design and assisted in disseminating the findings. A literature search was conducted in the University of Botswana library and local documents and reports were collected. On returning to London contacts were maintained with colleagues in Botswana and the literature search was continued. Criteria were developed for selecting study schools and the Coordinator of the Child-to-Child Foundation of Botswana was asked to identify schools according to these criteria.

July 1992 - Introduction to the field experiment

The researcher met with the head teacher and the teachers involved in running the Little Teacher Programme in the experimental school to negotiate their participation in the study. She explained their role in the intervention and introduced them to resource materials to support the teaching of the intervention topics. She also met the head teachers and the teachers of standards I, II and III in the control schools to negotiate their consent to participate. At this visit the role of the teachers in the control schools was carefully explained to them.

August 1992 - Training teachers, meeting parents, initial data collection

The researcher met the teachers implementing the intervention programme to get feedback on progress and to review the methods that the child educators would use to teach the preschool children. She conducted a training session to enable the teachers to apply the knowledge test. Each teacher received a picture book and the accompanying questionnaire and were lead slowly, question by question, through these tools. Care was taken to check that the meaning of the questions was clearly understood. She conducted a quiz to check understanding of the pictures and questions and to check that teachers could record answers correctly. Teachers then worked in pairs and practised applying the knowledge test to each other. After this each teacher practised administering the knowledge test to a child who was not participating in the study. The data collected during this practice session were discarded. The researcher also met the parents of the

schoolchildren participating in the study to thank them for their interest in coming to find out about the study and to gain their consent and support. The first set of knowledge test data were then collected and focus groups and home visits were conducted.

October 1992 - further data collection

The researcher supervised collection of the second set of knowledge test data and supervised focus groups and home visits.

July/August 1993 - final data collection and dissemination of findings

The researcher collected additional data using the draw-and-write method and met with teachers, parents, community leaders and children to disseminate preliminary findings from the study. She also participated in a UNICEF consultation meeting in Gaborone and presented the preliminary findings of the study to representatives from the Ministry of Education, UNICEF(Gaborone), the University of Botswana and the President of the CHILD-to-Child Foundation of Botswana. A report was submitted to the Office of the President of Botswana as requested in the letter of consent for the study and also to the Child-to-Child Trust in London. Seminars were given for staff and students at the Institute of Education, University of London and papers presented at International conferences in the UK and Japan. (The final report of the study was sent on request to the Botswana Library Service at the Ministry of Labour and Home Affairs, to UNICEF (Gaborone) and the CHILD-to-child Foundation of Botswana in 1995).

APPENDIX 3 PHOTO-RECORD OF THE FIELD WORK

Chapter 6: Child-to-Child in Botswana

The three photographs in this chapter were taken by the researcher in the urban school in Gaborone. The researcher was observing a routine Little Teacher session during the initial exploratory visit to the school.

- 6.1 A little teacher instructing the preschoolers.
- 6.2 A preschooler demonstrating a pre-writing exercise to the other preschoolers in the group having been instructed on what to do by the little teacher.
- 6.3 Little teachers supervising the work of their preschool 'twins' during a Little Teacher session in the urban school.

Chapter 7: The Field Experiment - Conceptualisation and approach in the field

- 7.1. The experimental school.
- 7.2. The initial exploratory meeting with children, teachers, parents and community members at the experimental school.
- 7.3 The team of school teachers who ran the Little Teacher Programme and implemented the intervention.
- 7.4 Preschool children attending the experimental school for a Little Teacher Session.
- 7.5 Collection of knowledge test data from child educators and preschool children in the experimental school.
- 7.6 Collection of knowledge test data from a child educator in one of the control schools.
- 7.7 Pre-testing the tools for the knowledge test. A member of the field team is administering the knowledge test to a child educator whilst the researcher observes.
- 7.8 Mothers and guardians participating in a focus group discussion together with a facilitator (in the white blouse). The note-taker is not in the picture.
- 7.9 Focus group discussion. The facilitator is starting the discussion by telling the mothers/guardians a story illustrated with pictures designed to stimulate discussion. The note-taker is not in the picture.
- 7.10 Focus group for fathers and guardians with a facilitator (wearing a white cardigan). The note-taker is not in the picture.
- 7.11 Focus group for children with a facilitator and a note-taker. The tape recorder can be seen





































APPENDIX 4 TOOLS FOR DATA COLLECTION IN THE FIELD STUDY

To present the tools in this appendix the original layout of the documents has been altered by using a smaller font and reducing the spacing but the content is unchanged. This appendix is organised as follows:-

- Background information on the sample
Questionnaire to collect descriptive data on the sample.
- Knowledge test
Questionnaire to be used together with the pictures (pp.30-39) to collect knowledge test data.
- Record of teaching sessions on the intervention topics
Record sheets to collect data on the timing and content of lessons taught by school teachers in the intervention programme.
- Focus groups
Briefing paper on focus group discussion for facilitators and non-participant observers.
Guidelines for conducting focus groups.

Record sheet for collection of observational data by the non-participant observer in the focus groups.

Record sheet for the verbatim transcription of the audio taped recordings of the focus groups and their translation from Setswana into English.
- Draw-and-write
Guidelines for conducting the teaching session to collect data from children's drawings and writing
- Interview data from school teachers
Guidelines for conducting individual interviews with school teachers
- Home visits
Guidelines for conducting home visits.
Observation checklist for home visits.

1. **Letsatsi (date of visit)**
day / month / year

- Leina la Morutabana (name of Enumerator)**.....

2. **ID** record no.....
school no.
preschool child primary school child.....

3. **Leina (name)**.....

4. **Dingwsaga (age)**.....
months / years

5. **Ngwana ke mong (gender):** monna (male).....
: mosadi (female).....

6. **Date of first attendance (registration) at school**.....
Day/month/year

7. **Leina la motsadi (name of parent or carer)**.....

8. **Name of school 'twin'**
(experimental group only).....

9. **Parents' Occupation:** Father Mother.....

10. **Parents' age in years:** Father..... Mother.....

11. **Parents' educational level:**
- never been to school and cannot read or write: Father..... Mother.....
- never been to school but can read and write: Father.....Mother.....
- primary school 1-4 completed Father.....Mother.....
- secondary schooling Father.....Mother.....

KNOWLEDGE TEST QUESTIONS TO BE USED TOGETHER WITH THE PICTURE BOOKS.

TOPIC 1 GO TSHAMEKA LE BANA (playing with babies)

Supa setshwantsho o bo o tlhalose ba botlalo (show the pictures and explain them carefully)

1. **Ngwana o tshwanetse a bo a le selekanyo se se kae fa o simolola go tshameka le ene?**
(What age should a baby be when you start to play with him/her?)

- | | | | | | |
|----|-------------|----|--------------------------------------|----|-------------------------|
| 1. | 0-3 months | 2. | 3-6 months | 3. | 6-9 months |
| 4. | 9-12 months | 5. | go feta ngwaga
(more than 1 year) | 6. | ga ke itse (don't know) |

2. **Ngwana o tshwanetse a bo a le selekanyo se se kae fa o simolola go bua le ene?**
(What age should a baby be when you start to talk to him/her?)

- | | | | | | |
|----|--------------|----|--------------------------------------|----|----------------------------|
| 1. | 0-3 months | 2. | 4-6 months | 3. | 7-9 months |
| 4. | 10-12 months | 5. | go feta ngwaga
(more than 1 year) | 6. | ga ke itse
(don't know) |

3. **Re tshwanetse go tshameka le bana ga leal leante ka selekanyo se se kana kang?**
(How often should we play with babies?)

- | | | | |
|----|--|----|------------------------------------|
| 1. | malatsi otlhe (every day) | 2. | ga ngwe fela ka beke (once a week) |
| 3. | ga bedi ka beke (twice a week) | 4. | ga ke itse (don't know) |
| 5. | fa ba sa robala (whenever they are not sleeping) | | |
| 6. | tse dingwe (tswee tswee di kwale) (other - please state) | | |
-

4. **Ke eng go Hhokega gool re tshameke le masea? (Why do we need to play with babies?)**

- | | |
|----|--|
| 1. | Go ba thusa go akanya (to help their brains grow well) |
| 2. | Go ba itumedisa (to make them happy) |
| 3. | ga ke itse (don't know) |

4. tse dingwe di kwale (other - please state)

.....

5. Bana ba ka tshameka jang le masea 3 to 6 months old?
(How can children play with babies 3 to 6 months old?)

- | | | |
|--|---------------------------------------|-----------------------|
| 1. ka go bua (talking) | 2. go opela (singing) | 3. go ngeba (smiling) |
| 4. go bitsa leina la ngwana (calling baby's name) | | |
| 5. go tsaya dikgang (telling stories) | 6. go dira bompopi (making toys) | |
| 7. encourage clasping | 8. playing hide and seek | |
| 9. Go opa diatle (hand clapping) | 10. go sadisa sentle (waving goodbye) | |
| 11. go tsamaisa tshipidi (helping baby to walk) | 12. ga ke itse (don't know) | |
| 13. tswe dingwe (tswe tswee di kwale) Other (please state) | | |

.....

TOPIC 2 CHILDREN'S STOOLS AND HYGIENE

Bontsha setswantsho 1 mme otlhalose ka tlhakomelo (Show picture 1 and explain it carefully)
--

1. Ke setshwantsho sefe se se supang gore letshololo le tsweetswe ke eng?
(Which picture shows the cause of diarrhoea?)

- | | |
|--|---|
| 1. boloi (witchcraft) | 2. megare mo mantleng (germs in faeces) |
| 3. rain/pula | 4. sepe sa tsone (none of them) |
| 5. dilo tseo tsollhe (all of them) | |
| 6. tse dingwe (tswee tswee di kwale)
(other - please state) | |

.....

Bontsha setswantsho 2 mme otlhalose ka tlhakomelo (Show picture 2 and explain it carefully)

2. **Mantle a a diphatsa thata a a nang le megare e mentsi te a fe, a ngwana kante a mogolo?**

(Which is most dangerous (contains more germs) the adult's stool or the child's stool?)

- | | | |
|----------------------------|-------------------|--------------------------|
| 1. mogolo (adult) | 2. mgwana (child) | 3. ollhe (both the same) |
| 4. ga ke itse (don't know) | | |

Bontsha setswantsho 3 mme otlhalose ka tlhakomelo(Show picture 3 and explain it carefully)

3. **Bana ba ba ka thusa jang gore megare e seka ya anama? Garawe le letsela di ka dirisiwa jang?** (How can these children help to stop the spread of germs from stools?)

1. ka go rotloetsa bana ba bannye go bolela fa ba batla go ithoma
(by encouraging young children to say when they need to use the latrine)
2. ka go thusa bana ba bannye go dirisa ntlwana sentle
(by helping young children to use the latrine properly)
3. ka go ola bana
(by cleaning up any stool which are dropped in places where people live and play)
4. ka go katela mantle fa go sena ntlwana
(by burying stools if there is no latrine)
5. ka go phimola ngwana ba bo ba tlhapa diatla ka metsi le molora
(by cleaning the young child's bottom and then washing their own hands with soap and water)
6. ka go tlhapa diatla ka metsi le molora fa ba tswa kwa ntlwaneng
(by washing their hands with soap and water after using the latrine)
7. ka go khurumela mosima wa ntlwana go itsa dintsi
(by covering the latrine hole to keep flies away)
8. ka go tswala lebati la ntlwana morago ga tirio
(by closing the door of the latrine after use)
9. tse dingwe (tswee tswee di kwale)
(other - please state)
.....
10. ga ke itse (don't know)

TOPIC 3 PREVENTING ACCIDENTS AT HOME

Supa setshwantsho o bo o tihalse ka botlalo (show the picture and explain it carefully)

1. **Dikotsi tse di ka dika nnang teng mo le lapeng mo ngwaneng.**
(What dangers are there for young children in the home?)

1. go sa (burns)
2. go segiwa (cuts)
3. go tswawa ke botlhole (poisoning)
4. go kgoma motlakase (electric shock)
5. go palelwa ke go metsa ka ntlha ya so mmetswa sengwei
(obstruction of breathing from swallowing small objects)
6. go tswa madi ka fa teng ka ntlha ya go segiwa ke dilo tse di bogale
(internal bleeding from swallowing sharp objects)
7. ga ke itse (don't know)
8. ga ke itse tse dingwe (tswee tswee di kwale) (other - please state)

.....

2. **Ke eng se bana ba ka se drang go thusa go thibela dikgobalo tse di ba dirafalelang le bana ba ba nnye mo lelapeng?** (What can children do to help prevent accidents in the home to themselves and to younger children?)

1. tlhokomela bana ba ba nnye (watch young children carefully)
2. thibela bana ba ba nnye go ya gaufi le molelo kgotsa lo bone (prevent young children going near the fire or lamp)
3. thibela bana ba ba nnye go ya gaufi le pitsa ee belang (prevent young children going near hot cooking pots)
4. dinsa kgai e kima fa o kgoma pita e e mogote (use a thick cloth when touching hot pots)
5. baya botihole le mokgwaro fa bana ba ka se di fithelelang (keep poison and matches out of the reach of young children)
6. O se tshale botlhole ka mo botlolong ya dino tsididi (never put poisons into soft drink bottles)

7. bottles/ruta bana ba ba nnye go se nwe sepe go tswa mo olong e e sa tlwae legang (teach young children not to drink out of strange bottles)
8. ruta bana ba ba nnye go se je se leungo le le sa itsiweng le setlhare se se sa itsiweng (teach young children not to eat strange fruits and plants)
9. boalo jwa ntlo bo se nne le digalase tse di thnbiwe ng le dipere ke (keep the floor clear of broken glass and nails)
10. baya thipa e e bogale fa ngwana a ka se e fitheleleng (keep sharp razor blade and knives out of the reach of young children)
11. ga ke itse (don't know)
12. tse dingwe (tswee tswee di kwale) (other - please state)

.....

TOPIC 4 CARING FOR CHILDREN WITH DIARRHOEA

Bontsha setshwantsho 1 mme o thalose ka tthokomelo gore ngwana oa lwala kantlha ya gare gangwe le gape o a tsholola (mantle a a metsi). Se, se kotsi mo baneng.
 (Show picture 1 and explain it carefully that the child is sick because he has frequent loose watery stools (diarrhoea). This is dangerous for children)

1. **O akanya gore go tha diragala eng ka ngwana (jaaka yo o mo setshwantshong) yo tshwerweng ke letshololo?** (What do you think may happen to a child like the one in the picture who has diarrhoea?)
 1. o ka swa (he may die) 2. o ka nna molesane (he may get thin)
 3. o ka sisama (he may recover) 4. ga ke itse (don't know)
 5. tse dingwe (tswee tswee di kwale) (other - please state)

.....

Bontsha setswantsho 2 mme otlhalose ka tlhakomelo (show picture 2 and explain it carefully)

2. **Bana ba ka thusa go thibela lethololo jang? How can children help to prevent diarrhoea?**

1. ka go itshwara phepa (mabogo a a phepa jalo jalo)
(by keeping themselves clean - clean hands etc)
 2. ka go nwa metsi a a phepa (by drinking clean water)
 3. ka go ja sentle (by eating properly)
 4. ga ke itse (don't know)
 5. tsedingwe (tswere tswee di kwale)(other please state)
-

Bontsha setshwantsho 1 gape (Show Picture 1 again)

3. **Bana ba ba tshololang ba ka thusiwa go foolisiwa jang? (How can children who have diarrhoea be treated?)**

1. ka go ba naya seno se se kgethegileng (by giving them a special drink)
 2. ka go ba naya dijo tse di ntsi (by giving them plenty of food)
 3. ka go antsha bana ba ba nnye thata mo mabeleng a bommabo
(by giving young children more breastmilk)
 4. ka go emisa gore ba anye mabele mme ba tshwarwe ke tlala
(by stopping breastmilk by starving the child)
 5. ga ke itse (don't know)
 6. tse dingwe (tswere tswee di kwale)(other (please state)
-

Bontsha setshwantso 3 mme o tlhalose gore ngwana o baakanya seno se se kgethegileng mme e bile se thibela le go emisa go tsholola
 (Show picture 3 and explain that this is a child preparing the special drink for preventing and treating diarrhoea)

4. Ke eng se se mo letsogong la ngwana? (What is in the child's hand?)

- | | | |
|---|---------------------------|----------------------------------|
| 1. letswai (salt) | 2. tshwikiri (sugar) | 3. ga ke itse
don't know |
| 4. tse dingwe (tswee tswee di kwale)(other (please state)) | | |
-

5. Ngwana o tshotse eng mo gare ga menwana ya gagwe? (What is the child holding between his/her fingers?)

- | | | |
|---|---------------------------|------------------------------------|
| 1. letswi (salt) | 2. tshwikiri (sugar) | 3. ga ke itse
(don't know) |
| 4. tse dingwe (tswee tswee di kwale)(other - please state) | | |
-

6. Ke seela (liquid) sefe se se mo galaseng? (What liquid is in the glass?)

- | | | |
|---|---------------------------------|---------------------|
| 1. metsi (water) | 2. masi (milk) | 3. sopo (soup) |
| 4. Motogo (porridge) | 5. ga ke itse (don't know) | |
| 6. tse dingwe (tswee tswee di kwale)(other - please state) | | |
-





















RECORD OF TEACHING SESSIONS CONDUCTED BY THE SCHOOL TEACHERS FOR THE CHILD EDUCATORS (LITTLE TEACHERS) ON THE INTERVENTION TOPICS

Date and duration of lessons given by adult teacher to Little Teachers on the study topics

Name of school.....

Date of lesson
Day/month/year

Length of time the lesson lasted.....
hours/minutes

Teacher's name.....

Topic for the lesson.....
.....
.....

Teaching methods during the lessons

.....
.....
.....

Teachers' comments on the lesson

.....
.....
.....

Were preschoolers present at this lessons?

.....

(A similar record sheet was provided for recording information on lessons given by little teachers to preschoolers on the study topics)

BRIEFING PAPER ON FOCUS GROUP DISCUSSIONS

1. Focus Group Method

Focus Groups are a method designed to gather information about beliefs, values and understanding. The interactions between the participants enable detailed information to be collected on prevalent attitudes and ideas, conflicts and contradictions. The main features of focus group discussions are shown below.

Key features of the focus group (Source Khan and Manderson, 1992 p. 58)		
Purpose research definition and refinement development of hypotheses generation of vocabularies formulation of questions for interview schedules provision of supplementary schedules	Composition advance selection by random sampling or alternative criteria homogenous with respect to major social divisions anonymity of participants preferred day, time and place determined in advance	Process discussion guidelines need to be pretested more than one focus group must be held moderator and note taker require training
Participant guidelines focus group runs 90 minutes, tape recorded with supplementary notes speak clearly, one at a time want everyone's opinion - no right/wrong answers courage of convictions	Role of moderator facilitates but does not dominate discussion introduces new issues for discussion monitors participant involvement and interaction, encourages active participation, keeps conversation flowing, maintaining focus but allowing for flexibility	Role of note taker maintains a written record of the focus group including: community, date, time (start and finish), place held; number and description of participants; major issues covered in focus group; group dynamics including non-verbal interaction; discussion details, and speaker identity - supplements tape back-up to moderator

2. Aims of the Focus Group Discussion

We will use focus group discussions to explore:

- the beliefs and attitudes of parents towards collecting ideas from their children
- traditional beliefs and practices around the health messages selected for the study

3. Number of Focus Group Discussions

2 focus group discussions will be conducted at each of the schools involved in this study.

4. Composition of the Focus Group

Each group will consist of 6 parents plus one facilitator and one note taker. At each school one group will be mothers and the other group will be fathers.

The focus groups of mothers will be facilitated by Mrs Lilian Masolotane and the focus group of fathers will be facilitated by Mr Moagi Gabarone.

The note-taker in each group will be a female social work student from the University of Botswana.

5. Selection of the focus group participants

Immediately prior to the focus group discussion school teachers will be administering the knowledge test to the parents of little teachers.

Pat Pridmore will invite the first 3 mothers who have a baby at home and a high test score and the first 3 mothers who have a baby at home and a low test score to join the focus group discussion. Selection criteria will be the same for the fathers discussion groups.

Each focus group discussion will also include one facilitator and one note-taker (non participant observer).

6. It may also be possible to have one focus group of Little Teachers at each Child-to-Child school facilitated by the adult teacher.

7. The Role of the Facilitator

The facilitator is responsible for ensuring that the discussion is conducted in a relaxed manner.

He or she introduces new issues (questions) for discussion but does not dominate the

discussion. Participants enjoy some flexibility in the order and direction of questions.

He or she encourages active participation and ensures that everyone has a chance to speak. Questions are used to prompt and probe to clarify and encourage elaboration. Questions begin broader and then become more specific. It is particularly important to involve participants with the lowest knowledge test scores.

8. Guidelines for participants

The focus group will run for 90 minutes and will be tape recorded with supplementary notes. The first 45 minutes will focus on beliefs and attitudes of parents toward learning from their children. The second 45 minutes will focus on beliefs and practices around the selected health message.

Participants need to speak clearly. We want everyone's opinion. There are no right or wrong answers. All answers are equally right. Participants should speak out with the courage of their convictions, ie. say what they really think.

9. Guidelines for the note-taker

- (a) The note-taker is responsible for maintaining a written record of the focus group. This includes:

- date of focus group discussion; name of school; starting time of discussion; finishing time of discussion; number of participants; sex of participants; description of participants; major issues covered in focus group;

- group dynamics, including non-verbal interactions and exchanges. This includes writing down which statements are made by particular individuals; discussion details, including speaker identity (to supplement the tape). It is very important that we can identify which participant is speaking on the tape.

A notepad will be provided for this purpose and the note-taker is responsible for filling in the report sheet.

- (b) The note-taker is also responsible for the transcription of the tape recordings. This involves translating them into English and producing a written verbatim (as spoken) record.

GUIDELINES FOR FACILITATING THE FOCUS GROUP DISCUSSIONS WITH PARENTS AND GUARDIANS

Thank you for your interest in facilitating this focus group. The group will meet together for 2 hours and two discussions will be conducted of 45 minutes each. The first discussion will explore the attitudes of parents to learning from their children and try to identify factors which help this learning or which impede it. The group will then have a break before the second discussion which will explore the beliefs and practices of participants around caring for children with diarrhoea .

First discussion: To explore the process by which children can pass health messages to their parents

Start by welcoming participants into the focus group and helping people feel relaxed. Explain the purpose of the focus is to find out what the parents think about children bring health messages home from school and also to find out what parents think about problems like diarrhoea. Tell them about the timing of the session and then introduce the topic by showing Picture 1 (the picture of Moagi playing with his baby sister) and telling the following story:

This is a story about Moagi. He is 9 years old and attends a school where he learns many ways of helping his younger brother and sisters to grow and develop well and to keep strong and healthy. He is encouraged to pass health messages to his family and to practice the messages at home. At home he spends more time playing with his baby sister and making toys for her. He watches her to make sure she doesn't have an accident. He helps to keep the house clean and takes his little brother to use the latrine. He asks his mother where he can find soap and water to wash their hands. His mother notices all the activities her son is now doing and wants to discuss the changes with her husband.

Show picture 2 and explain that this is Moagi's mother talking to his father. Now facilitate the discussion leading on from the story using some of the following questions to guide the discussion.

What do you think Moagi's mother will say to her husband?

What do you think her husband will reply?

Would the conversation be any different if the school child (Moagi) was a girl?

How do these parents feel about the idea of learning from their children?

What would grandparents feel about it?

How did this mother learn from her child?

Do you learn from your children? If so how do you feel about it?

Have your children brought home any new health messages recently? If so what are the messages?

Was it your son or your daughter who brought the message?

How did they pass the message to you?

What other ways are there for parents to learn from their children?

What kind of health messages are useful for children to learn and practice at home) (Why?)

What kind of health messages are not useful for children to discuss with parents. (Why?)

Who do girls talk to most at home why? Who do boys talk to most at home. (Why?)

If we accept health messages from our children can we make changes to improve our health at home? (eg. can we use more water, buy more soap, give children more time to play with their younger brothers and sisters etc.).





Second discussion: To explore the beliefs and practices of participants around caring for children with diarrhoea.

Start by telling the group that the next topic for discussion is diarrhoea and ask different members of the group to describe what the word diarrhoea means to them. The following questions may be useful to help guide the discussion:

What is the local name for diarrhoea?
Is there only one name or many names?
Are there different types of diarrhoea.

Where do the different types of diarrhoea come from
Why do people get the different kinds of diarrhoea?
Is the diarrhoea which children get the same as the diarrhoea adults get?

What can we do to prevent diarrhoea especially in children?
How can we treat children who have diarrhoea?
Should we give small children extra breastmilk when they have diarrhoea ? If yes why? If no why?
Should we give food to children with diarrhoea? If yes, why and what type of food? If no why?

What did our parents and grandparents believe caused diarrhoea?
How did they prevent and treat diarrhoea especially in young children?

GUIDELINES FOR FACILITATING THE FOCUS GROUP DISCUSSIONS WITH CHILD EDUCATORS

The aim of this discussion is to find out what makes it easier or more difficult for the little teachers to pass health messages to their parents. We also want to find out whether they have been able to act on the health messages they have been teaching and if not why not. Start by welcoming the children and help them to feel comfortable and relaxed. Explain that they you are going to have a discussion with them about how they got on when they took the health messages from the Little Teacher Programme home to their parents

Begin the discussion by showing them Picture 1 (Moagi playing with his little sister - see p. 48) and telling them the following story:

Here is Moagi. He is nine years old and goes to a school where he learns to help his younger brothers and sisters to grow and develop well and to keep strong and healthy. He is encouraged to pass health messages to his family and to practice the messages at home.

At home he spends more time playing with his baby sister and making toys for her. He was delighted when she took her first step with his help. He watches her to make sure she doesn't have an accident. He helps to keep the house clean and takes his little brother to use the latrine. He asks his mother where he can find soap and water to wash their hands

Show picture 2 (see p.49) and explain that this is Moagi's mother talking to his father. His mother notices all the activities her son is now doing and wants to discuss the changes with her husband.

Now stimulate the discussion using some or all of the following questions as a guide:

What do you think Moagi's mother is saying to her husband and what do you think he is replying to her?

If Moagi was a girl what do you think her mother would be saying and what would her father be replying?

How do you think you would get on at home if you were Moagi or his sister?

What would make it easier for Moagi to tell (or show) his parents what health messages he has learned at school?

Ask the girls - who do you talk to most at home? (Mother, father, auntie etc.)

Ask the boys - who do you talk to most at home?

How did you get on telling (or showing) your parents about the health messages you have been learning in the last four weeks?

Could you find anything to make toys with? If you made a toy please will you draw it for us now.

Which health messages is it easy for you to tell your parents about?

Which messages are difficult to talk to your mother or to your father about and why? Try giving some examples of messages.

NOTE-TAKERS REPORT SHEET FOR FOCUS GROUPS

This form is to be filled in by the non-participant observer at the focus group discussions.

1. Name of note-taker..... Date.....

 Name of school.....

 Total no. in focus group..... male..... female.....

 Description of participants eg tribe.....

 Occupation(s).....

 Starting time..... finishing time.....

 Length of discussion.....

2. Major issues covered in focus group

 (more space was provided).....

3. Group dynamics (including non-verbal interaction and exchanges. (This includes writing
 down which statements are made by particular individuals)

 (more space was provided).....

4. Details of the discussion (please include identity of speaker).

 (more space was provided)

VERBATIM RECORD OF THE FOCUS GROUP DISCUSSION

Please provide a verbatim (as spoken) transcription of the tape recording of the focus group on the following sheets.

.....(more sheets provided)

GUIDELINES FOR DRAW-AND WRITE

Guidelines for the collection of data on children's beliefs around health using the draw and write technique (adapted from Williams, Wetton and Moon (1989 p67))		
Spoken instructions	Permitted prompts and reminders	Beware
<p>Part 1 Introduction</p> <p>'Good morning how are you all today? I bring you greetings from London and from my daughter. Do you remember her name? Last time I was here I thought you all looked very healthy. Let me look at you again. Show me how healthy you are. Yes-a very healthy looking class.'</p>	<p>Emphasise the word healthy. Children will usually sit up, look taller and smile.</p>	<p>Please do not use any other words, eg. fit and healthy, strong, feeling good etc.</p>
<p>Activity 1 Explanation</p> <p>'Now I want you to think of all the things you do or could do to make and keep yourself healthy. No. don't tell me or anyone else, keep it a secret. Think of yourself doing things to make you healthy and keep you healthy'.</p>	<p>These are key phrases - make you healthy, keep you healthy. Repeat them as often as necessary and encourage the children to join in and repeat them with you. Keep reminding them 'Keep it a secret'.</p>	<p>Do not give any clues or hints. Do not let the children divulge their ideas to others.</p>
<p>Activity 2</p> <p>'Now I want you to draw yourself doing all the things you thought of to make you healthy and keep you healthy'.</p>	<p>Keep reminding them to 'Keep thinking of pictures to draw'. Praise children 'Yes that makes you healthy', Yes, that's a good one'. Do not pass on ideas to the children. If necessary say 'Try to think of things you do each day'.</p>	<p>Discourage children from looking at each other's work and from discussing their drawings. Do not suggest what to draw. Beware of children copying from each other at each stage of the exercise.</p>
<p>Activity 3 Writing</p> <p>'Now write what is happening in each of your pictures. If you need help with the writing tell me in a whisper and I will come and write it for you'.</p>	<p>Where the spoken or written words seem to have no clear reference to health ask the child: 'How does that make you healthy? Write the child's answer. If it is unrelated to health please write unrelated.</p>	<p>Do not suggest to the child how his or her picture might be linked to health. Ask only permitted questions.</p>
<p>Conclusion of Part 1</p> <p>'We have to stop this work in 5 minutes. I'm coming round for a last look. You finish off your writing'.</p>	<p>Remind them 'Make sure you have drawn all the things you thought of'.</p>	<p>Check that there is something written for each picture that each child has drawn.</p>
<p>Part 2</p> <p>The children are asked to turn their sheets of paper over and the above exercise is then repeated. This time, however, the children are asked to focus on all the things they do or could do to make themselves unhealthy. At the end of the 20 minute drawing and writing time allowed the pictures are collected in and children are given five minutes to relax and 'buzz' to each other whilst clean sheets of paper are distributed.</p>		
<p>Part 3</p> <p>The third part of the draw and write exercise then continues in the same way as previously. This is summarised as follows:- A short introduction by the researcher (translated by the facilitator) in which the children are asked to think about the things which people do which cause them to die. Children are again reminded not to talk about it to anyone in the classroom. The children are then asked to draw as many pictures as they can on one side of the paper of the ways in which most people die. Children are then asked to write (or dictate to the facilitator) a phrase or sentence to accompany each picture. After 20 minutes the children are asked to finish off their work and hand it in to the researcher. Finally the Children are encouraged to debrief the exercise by asking the researcher and facilitator questions and 'buzzing' quietly amongst themselves. This is followed by a meal break.</p>		

GUIDE FOR INTERVIEWING SCHOOL TEACHERS IN EXPERIMENTAL SCHOOLS

Rationale for the interviews: We need to understand more about the processes involved in the intervention. We need to know how the school teachers taught the topics to the schoolchildren and how these messages were passed on to the preschool children. We need to learn from teachers' experiences of administering the knowledge test - to know how easy or how difficult it was for the children to understand the questions and pictures. We need to know more about the children's answers and about what teachers think about these answers.

The aims of the interviews are (1) to understand more about the processes involved in the intervention programme when the teachers passed the messages to the schoolchildren and when the schoolchildren passed the messages to the preschool children (2) to receive feedback from the teachers on the problems and constraints experienced when administering the knowledge test and any common comments made by the respondents about the pictures or the questions which might help to assess how relevant and appropriate the test was (3) to assess the level of knowledge of the teachers of the four topics in the intervention (4) to collect data on how or why the Child-to-Child programme has been successful in mobilising teachers to run the programme without extra financial reward accruing to them.

Interview guide

The teachers' consent will first be gained for the interviews and they will be interviewed individually and in confidence by the researcher. Each interview will take approximately 40 minutes and will be semi-structured. The first few minutes of each interview will be spent settling the respondent, building rapport, and reviewing the aims of the interview. All interviews will be tape-recorded.

Interview questions

1 How many teaching sessions teaching were you involved in for teaching the study messages between my first visit in July and my second visit in August? Please give dates of lessons, duration, topic and teaching methods used. Was a register kept of children attending these teaching sessions?

2 How were these sessions were conducted? How many preschoolers were present? How many little teachers were present? How many school teachers were present? Did you work in one whole group or subdivide the group, what teaching methods did you use, what learning materials etc.

3 Repeat Q1 and Q2 for the second stage between my second and third visits ie. between the first testing and the second testing of the children.

4. Administer the knowledge test aurally starting with the settling picture - test visual literacy and encourage comments from teacher's view of the pictures and also their recall of the children's comments. Go through each of the pictures in order and ask what comments the children have made, degree of difficulty/ease of understanding etc. Ask teacher how they would answer the question(s) being asked about the picture.

5. How did you come to be involved in the Little Teacher Programme? What motivates you to continue in the programme?

GUIDELINES FOR CONDUCTING THE HOME VISIT

Thank you very much indeed for your interest and help in conducting this study.

Aim: To find out whether the health messages communicated in this Child-to-Child study have resulted in any change of behaviour or practice at home by children, parents or other adults.

Procedure

Home visits need to be conducted carefully so that the parents feel happy and relaxed and not threatened. The observer must not appear invasive and must build up and maintain a friendly and open relationship with the family members. It is not advisable to use a clipboard. Please copy the checklist into your field notebook and write down your observations in this notebook. Immediately (at least the same day) after the visit, please transcribe your observations and comments onto the Observation Report Form.

OBSERVATION CHECKLIST FOR HOME VISITS

date of visit.....

1. Name of observer (researcher).....
2. Name of adult respondent.....
3. Name of child respondent.....

Topic 1: Playing with babies Use the following questions to guide your observations:

1. How old is the baby?
2. Describe any toys you can find in the home
3. Who made these toys?
4. How do the adults react to the baby?
5. How does the child react to the baby?.

(Baby needs to be awake for Q4 and Q5)

Comments (more space was provided)

.....
.....
.....

Topic 2 :Children's Stools and Hygiene

Is the home clean?

Is the latrine clean?

Is the hole covered?

Is the door closed?

If there is no latrine where do people relieve themselves?

What happens when baby passes a stool?

How is baby cleaned - by whom?

How is nappy cleaned and by whom?

If there are young children (say 1-3 years) what happens when they pass a stool?

Is there water and soap visible for hand washing? If not why is there no water or soap?

Comments (more space was provided)

.....
.....
.....

Topic 3: Preventing Accidents at home

What dangers for young children do you see in the home?

(eg. knives, razor blades, loose electric wires, small objects to swallow like coins, buttons, nails, sharp objects - glass, hot lamps, hot cooking pots, open fires, poisons (eg kerosene), matches, other

Is anyone watching young children?

How are babies and young children kept safe from home accidents?

How do people carry hot cooking pots?

Comments (more space was provided)

.....
.....
.....

Topic 4: Caring for children with Diarrhoea

Does the child look clean?

Do parents and other adult family members look clean?

Does the drinking water look clean?

Is the family very poor/average/rich?

Is the quantity (amount) of food in the house poor/average/good?

Which of these food stuffs are present in the home? sugar/salt/oils and fats/fruits and vegetables/animal products (milk, meat, eggs etc)

Comments (more space was provided)

.....
.....
.....

APPENDIX 5 RESOURCE MATERIALS PROVIDED FOR TEACHERS

The teaching materials supplied to the teachers to support their teaching of the intervention programme were (i) Child-to-Child Activity Sheets on each of the four intervention topics (ii) a summary of each of the Activity Sheets and (iii) an introductory sheet on how to use the Activity Sheets. A copy of each of these materials is provided in this appendix as follows:

1. Information for teachers
2. Summary sheets on each of the topics
3. Introductory sheet
4. Child-to-Child Activity Sheet 1.6 'Playing with Babies' (topic 1)
5. Child-to-Child Activity Sheet 3.3 'Children's Stools and Hygiene' (topic 2)
6. Child-to-Child Activity Sheet 4.1 'Preventing Accidents at home' (topic 3)
7. Child-to-Child Activity Sheet 6.1 'Caring for Children with Diarrhoea' (topic 4)

1. INFORMATION FOR TEACHERS

For the purpose of the field study, school teachers involved in the Little Teacher Programme will teach four new health topics to the little teachers using the activity based teaching methods which are normally used in the programme. **It is important that the preschool children are not present during these teaching sessions with the little teachers.** The little teachers need to learn and understand the messages involved in the topics and know what action they can take. The four new health topics are:

- | | |
|----------|------------------------------------|
| Topic 1: | Playing with babies |
| Topic 2: | Children's Stools and Hygiene |
| Topic 3: | Preventing Accidents at Home. |
| Topic 4: | Caring for children with diarrhoea |

2. SUMMARY SHEETS ON EACH TOPIC

Topic 1: Playing with Babies (see also Child-to-Child Activity Sheet 1.6)

The Message

What? Babies need to be played with and talked with from the time they are born.

Why? Playing with babies helps their brains grow well.

How? By talking, singing, smiling at baby, calling baby's name, telling stories making toys - bright mobiles, rattles, objects on a string, encourage clapping playing game 'hiding objects when baby is watching, hand clapping, waving goodbye, giving hugs, telling stories with dolls etc. helping babies to walk.

Children need to know: At what age should you start playing with a baby and why. How should you play with babies and how often should you play with them. When should you start talking to babies and why.

Topic 2: Children's Stools and Hygiene (see also Child-to-Child Activity sheet 3.3)

The Message

Diarrhoea is caused by germ present in stools. These germs can pass from one person to another on the hands, in dust, in food and drinks and on flies. Young children's stools are especially dangerous because they contain many more germs than the stool of an adult. Children can help to stop the spread of germs from young children's stools by:

(1) encouraging young children to say when they need to use the latrine and helping them to use it properly (2) cleaning up any stools which are dropped in places where we live and play (stools should be buried if there is no latrine) (3) cleaning the young child's bottom and then washing their own hands with soap (4) washing hands with soap and water after using the latrine (5) covering the latrine hole to keep flies away (6) closing the door of the latrine after use.

Children need to know: What causes diarrhoea; why is it important to be especially careful about younger children's stools and how children can help to stop the spread of germs.

Topic 3: Preventing Accidents at Home (see also Child-to-Child Activity Sheet 4.1)

The Message

Many children die every year from accidents at home. Children can learn to recognise common dangers at home and understand how these can be avoided or prevented. These dangers are:

- (1) burns from fires, cooking pots, lamp, hot food, hot water.
- (2) cuts from broken glass, rusty pins, rough wood or sharp knives and axes.
- (3) obstruction of breathing from swallowing small objects like nuts, stones, coins, buttons.
- (4) poisoning from eating and drinking harmful things like petrol or paraffin, medicines.
- (5) internal bleeding from swallowing sharp objects like razor blades.
- (6) electric shock from touching a broken appliance or electrical wires.

Children need to know that they can help prevent accidents by (1) preventing babies and young children going near the fire and hot cooking pots (2) using a thick cloth when touching hot pots (3) keeping poisons and matches out of the reach of young children and never putting them in a coca-cola or other soft drink bottles (4) teaching young children not to drink out of strange bottles or to eat strange fruits and plants (5) keeping the floor clear of broken glass and nails and getting rid of splinters and keeping sharp razor blades and knives out of the reach of young children.

Children need to know: What the most common cause of dangers at home are and how children can help to prevent accidents in the home to themselves and to younger children

Topic 4: Caring for Children with Diarrhoea (see also Child-to-Child Activity Sheet 6.1)

The Message

Diarrhoea is dangerous because it can both kill children and make them too thin.

Diarrhoea can be prevented by keeping clean, drinking clean water and by eating properly.

Children with diarrhoea can die because their bodies lose too much water. The liquid they lose must be put back by giving them one cup of liquid each time he/she passes a loose stool. The best liquid to give is a 'Special Drink'. Children can help to make this special drink by putting a small hand scoop of sugar (one teaspoonful) and a (two finger) pinch of salt (a little salt at the end of the teaspoon) into a glass of clean water. Children with diarrhoea also need to continue eating so that they have enough strength to fight the illness. Breast milk is best for young children, older children need to eat their normal food several times a day.

Children need to know: Why diarrhoea is dangerous for children. How diarrhoea can be prevented and how children with diarrhoea can be treated.









































APPENDIX 6 WORKSHOP PLAN FOR TRAINING THE FIELD TEAM

This two-day workshop has been developed by the researcher to develop the understanding and skills needed for the field team to assist in the collection of knowledge test and focus group data.

Date and location of workshop: July 1991 at the office of the CHILD-to-Child Foundation of Botswana. During the workshop participants will visit a Primary School to field test the research tools.

Workshop Participants

Mrs. Pat Pridmore (workshop facilitator) Lecturer in Health Education, University of London Institute of Education. Researcher and team leader responsible for study design, development and provision of research tools and techniques, quality control of data, analysis and interpretation of data and reporting back.

Mrs. Lilian Masolotatse Coordinator CHILD-to-Child Foundation of Botswana. Responsible for selection of schools following criteria provided by the researcher, school liaison, applying knowledge test, facilitating focus group discussions and home visits.

Ms. Teboho Pilane and Ms. Ntebogang Maenge students from the University of Botswana studying to be social workers and on a field attachment to the CHILD-to-Child Foundation. Responsible for applying knowledge test, facilitating focus group discussions and home visits.

Mr. Moagi Gabarone, Oral Health Educator, Ministry of Health. Responsible for working with male participants in the study to apply the knowledge test and facilitate focus group discussions.

Objectives of the workshop

By the end of the workshop participants should :

1. Be able to explain the purpose of the field study, describe the study design and have agreed their distinct roles in the team.
2. Have field tested the research tools and agreed on final changes and local adaptations to be made to the tools.
3. Have developed the skills and competencies needed to use the research tools effectively to collect data from the knowledge test and focus groups.

Workshop materials

A briefing pack for each member of the field study team containing a complete set of the research tools in draft form including guidelines for conducting the knowledge test, focus groups and home visits and tools for collecting data.

Workshop Plan

Day 1

Morning session

1. Welcome and general introductions to team members - 'friendly time'.
2. Introduction to the field study, its purpose and the research design. Group discussion.
3. Defining and agreeing individual roles within the team.
4. Detailed review of the research tools for the knowledge test - trigger pictures and probe questions. Queries and comments to be noted.
5. Role play in pairs to develop skill at using the tools for the knowledge test. (Practice at being the enumerator and at being the respondent.)
6. Introduction to the purpose and use of focus group discussions and the role of facilitator and non-participant observer. Review of the questions developed by the researcher as a checklist for facilitators. All suggestions for change to be noted.
7. Review of the guidelines for home visits and the questions developed. All suggestions for change to be noted.
8. Summing up and review of the morning's work.

Afternoon session

1. Role play to develop skill in facilitating focus group discussion using the guidelines. Each participant to take a turn in each of the roles: facilitator, the non-participant observer and member of discussion group.
2. Group discussion of the role plays to identify problem areas and ways of overcoming them and to comment on changes needed in the guidelines.

Day 2 - morning

1. Visit to Primary School to field test the tools. This involves school children, preschool children and the Child to Child teachers in the school. All comments and suggestions are to be noted.

Day 2 afternoon

1. Discussion of the morning's work field testing the tools and collation of all comments and suggestions made on the draft documents.
2. Agreement on amendments and preparation of the final tools to be used for the study.
3. Summing up and evaluation of the training workshop.